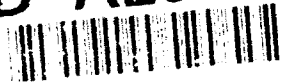


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**THE VIETNAM ERA AND  
THE RISE OF THE FIGHTER GENERALS**

BY

**LIEUTENANT COLONEL R. MICHAEL WORDEN**  
United States Air Force

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THE VIETNAM ERA AND THE RISE OF THE FIGHTER GENERALS

AN INDIVIDUAL STUDY PROJECT

by

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## ABSTRACT

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Those sitting atop the world's most powerful military service are exclusively fighter pilots, in an institution built from scratch by bomber pilots. This study describes when, how, and why this remarkable change came about in the United States Air Force. It is a detailed study that analyzes rival Air Force groups as they struggle for power within institutions and cope with change. The methodology and message of the study not only enhance better understanding of today's Air Force, but also have sizeable implications for understanding leadership and change in other institutions.

The author has addressed both internal institutional dynamics and external influences on the selection of senior Air Force leaders. Assuming that the careers, attitudes, and actions of generals would illuminate Air Force perspectives and policies, he constructed a detailed spreadsheet that traced the career paths and experiences of all 232 four star generals in Air Force history. This process revealed a revolution in leadership between 1965 and 1982, uncovering trends in the grooming, promoting, and assigning of Air Force leaders over time. Institutional statistics correlated.

To better understand attitude formation of generals, the author canvassed literature on military sociology and ideology, conducted interviews, and reviewed oral histories. Differences in WWII and Korean War formative experiences of the Vietnam era generals led to different perspectives as senior leaders. With some exceptions, more bomber generals retained absolutist views on the use of airpower while fighter generals were more likely to be pragmatic. Each community cultivated a different ethos and confidence in its air arm, but after WWII, slim budgets, interservice rivalries, doctrinal traditions, and national security policy induced the fewer fighter four stars to concede preeminence to bomber types. The Air Force built a force structure to match by creating even more command positions for bomber generals, thus increasing their monopoly.

Further research revealed a growing ossification of the bomber generals by 1960. Led by Generals LeMay and Pover, they remained convinced of the efficacy of manned strategic bombers (despite new technologies) and assumed a national willingness to use atomic weapons that exceeded political realities. With sufficient funding they believed they could win a nuclear war as well as deter and control smaller wars. As involvement in the Vietnam War grew, they generally remained wedded to absolutist and traditional beliefs. In some instances their rigidity became an encumbrance to airpower in Vietnam.

Meanwhile, the subordinated fighter community seized the opportunity in Vietnam for tactical airpower. They were less uncomfortable in allied, joint, and limited operations, and more receptive to diverse and affordable technologies. While they too

believed in the massive use of airpower, they were better equipped for the complex challenges of the Vietnam era.

The victors of the struggle for power during Vietnam were those generals better able to grasp new demands on the military profession induced by rapid technological, economic, and political change. This required education, a flexibility of mind, and a breadth of Air Force and Capitol Hill experience. The bomber community's deliberate insularity and rigid policies hindered adaptability. The fighter community enjoyed the internal advantage of an environment that encouraged innovation, delegation, and flexibility, as well as the external advantage of new technology that increased the range, payload, survivability, accuracy, and flexibility of their systems. Most important, fighters gained more force structure, combat experience, and positive political exposure during the Vietnam era, while the bomber deterrent was further diluted by SLBMs, ICBMs, and SALT talks. In the 1970s, bomber procurement programs declined along with the bomber community's morale, performance, and size. By 1982, a post WWII generation of pragmatic and mostly fighter generals were running the Air Force, ultimately because of favorable defense policy, beneficial technologies, and the relative decline of absolutism.

Interestingly, the new high command's doctrinal focus on "airland battle" may have been narrow a view of airpower as the monistic focus of SAC over two decades before.

Considering these trends, this study highlights the influence of formative experiences on later perspectives, as well as the dangers of parochialism and bias in any organization that is too homogenous in culture and thought at the top. It also demonstrates how pragmatic views on airpower were better suited for an era of limited war and detente.

## THE VIETNAM ERA AND THE RISE OF THE FIGHTER GENERALS

### INTRODUCTION

Much has been written on American airpower, particularly since it has become a dominant force in modern warfare. Much less has been written critically on air leadership; less still on institutional dynamics that shape air leadership. Yet, those sitting on top of arguably the world's most powerful military service, the United States Air Force, are almost exclusively fighter pilots, in an institution built from scratch by bomber pilots.<sup>1</sup>

This study describes when, how, and perhaps why this remarkable shift in leadership occurred. In that sense it is also a brief history of Air Force thinking. It is the first detailed study of its type that attempts to analyze rival groups as they struggle for power within institutions and cope with change. The methodology and message attempt to enhance not only better understanding of today's Air Force, but also have sizable implications for understanding leadership and change in other organizations.

The author has addressed both internal institutional dynamics and external influences on the selection of senior Air Force leaders. A basic assumption was that the careers, attitudes, and actions of generals would illuminate Air Force perspectives and policies. Therefore, he constructed a detailed spreadsheet that traced the career paths and experiences of all 232 four star generals in Air Force history. The spreadsheet revealed a clear

revolution in leadership between 1965 and 1982. The data also uncovered trends in the grooming, promoting, and assigning of Air Force leaders over time. A survey of institutional statistics helped explain further the nature and extent of this change in leadership. This study terminates in 1982 when the leadership change culminated with the selection of the first in a continuous string of fighter generals as Chief of Staff.

To better understand attitude formation of generals, the author canvassed the literature on military sociology and ideology. Evidence indicated that differences in World War II and Korean War formative experiences of the Vietnam era and post-Vietnam era generals led to different perspectives as senior leaders.<sup>3</sup> To analyze more closely generational differences of Air Force four star generals, the author divided them into age groups based on markedly different formative experiences.

#### GENERATIONS OF FULL GENERALS

The "senior World War II generation" was commissioned between 1926 and 1932.<sup>4</sup> They entered the air corps as pioneer aviators and followers of the legendary, though recently court-martialed, air prophet—Billy Mitchell. Nearly 70% were bomber pilots and 60% percent participated in the debate and ultimate canonization of airpower theories at the Air Corps Tactical School before World War II. There the gospel professed the decisiveness of strategic bombing, and gave birth to the air "absolutists," who believed avowedly that airpower itself could render a decision in war far cheaper than the slaughter witnessed in World War I.<sup>5</sup> With few

exceptions, the bulk of this generation finished World War II as wing commanders and air division commanders, preoccupied with the operational employment of forces in total war, while glancing only occasionally into the world of strategy and higher policy. The most remarkable characteristic of this group was their age.

Explosive mobilization for war and attrition had catapulted 90% of them to flag officer rank and responsibilities by war's end—the vast majority would finish the war in their thirties. Such youth would enable all who remained in the Air Force to increasingly dominate its senior leadership positions through 1965.

Next, the "junior World War II generation" was commissioned between 1932 and 1945. These future four stars were 60% bomber pilots, and generally the flight leaders and draftees of World War II. They were less educated and further removed from command, policy-making and the vigorous fight for service autonomy (though not unaffected) than their senior cohorts.<sup>6</sup> All were colonels under 35 years of age at war's end, and would dominate four star positions from mid 1965 to 1977, with the last retiring in 1981.

Finally, there were the Air Force officers at the rank of major and below in the Korean War who would dominate senior Air Force leadership positions from 1978 to 1987. This "Korean War generation" was commissioned too late to participate in World War II. They were demographically much like the junior generation, but significantly more educated academically and professionally.<sup>7</sup> Yet 60% of this generation were fighter pilots, and their future leaders would take a broader career path to the top than predecessors.



To understand better how these future leaders would approach the challenges during the period of leadership shift in the Vietnam and post-Vietnam eras, one must further dissect early formative experiences.

## WORLD WAR II

Army psychologists described those who applied to fly in the Air Corps before and during World War II as aggressive, impulsive, adventuresome, and "action-oriented."<sup>8</sup> They were generally younger, healthier, and more educated than Army recruits.<sup>9</sup> By the early 1940s extensive psychological, psychiatric, psychomotor, and physiological testing produced graduates that a research group noted, "...were very much aware of the fact that they represented a highly selected superior group of soldiers."<sup>10</sup> Top scorers usually became pilots, and after the basic flying course, instructors decided whether to send students on to single or multi-engine training.

Psychologists observed that those selected as bomber pilots were mature team players, more deliberate and ordered in their thinking, with slower, but dependable decisions and actions. Fighter pilots were more alert, responded quicker, and displayed higher motivation and controlled aggressiveness than other single-engine and multi-engine pilots. Largely, those with the best pure flying skills progressed into fighters, unless they desired to fly bombers.<sup>11</sup> Both focused on machinery and technique, and both found their flying environment reinforced behavioral patterns. Bomber crews had to work closely together, follow specific procedures, fly

rigid formation, limit maneuvering, and persevere with discipline amidst adversity. Fighter pilots were generally more self-reliant, free to maneuver, and aggressive. Each elitist community was proud, parochial and valued experience over education, discipline over critique.

World War II consumed the future generals with operational matters and problems of execution, tasking them, as one historian noted, "To fashion the machinery of war, not to worry about its purposes."<sup>12</sup> They were doers, not thinkers—though many later thought their operational experience was sufficient strategic background.<sup>13</sup> They were proud of their independent contribution—one they felt worthy of service independence.

The post-World War II Strategic Bombing Survey fulfilled the *preconceived* notions of most readers. For the air absolutists, there was ample evidence that indicated allied airpower was "decisive." The study surmised that strategic bombing would have halted Germany's armament production by May 1945, resulting in the collapse of resistance a few months later. Similarly, it suggested that by the end of 1945, Japan would have surrendered without atomic bombs, Russian intervention, or land invasion.<sup>14</sup> It verified an absolutist belief that, if managed by airmen, resolute strategic bombing alone could be decisive in war.

Those future generals whose formative experience was strategic bombing in total war were more likely to embrace the absolutist view as justification for their tremendous sacrifice. Those who spent their early years in the tactical air forces, flying a variety of missions—many in support of the army or

allies—were more inclined to view airpower as a decisive element in war. Their distance from the sacred strategic bombing mission, and the breadth of their experience, developed an inclination toward a more "pragmatic" perspective.<sup>15</sup>

Politics, economics, and the promise of technology favored the absolutists in the wake of World War II. President Truman demanded budget cuts and sought a cost-effective solution to contend with the growing Soviet menace. The air absolutists' offer of a relatively inexpensive atomic strategic bombing force brought forth an unrivaled unity of voice and purpose within the Army Air Forces. For these dominant absolutists, "decisive" strategic bombing would legitimize not only service independence, but preeminence in the new era. Nevertheless, as one future fighter general noted, "Bombardment and autonomy were natural partners, but fighters were antithetical to both."<sup>16</sup> To support a fighter-oriented doctrine was to admit weaknesses in strategic bombing and question the case for autonomy. The absolutists prevailed, and taxied down a path of increasingly dogmatic doctrine that differed from the prewar faith in little more than incorporation of long range escorts.<sup>17</sup>

Exuberant about independence in 1947 and likely preeminence for the future, the air advocates' optimism and confidence invoked what many judged as "romantic" views of airpower. One outside observer wrote:

Air power romanticism was a natural successor to the naval romanticism which had sprung up a half-century or so earlier; its advocates were in the direct line of the Mahanist proponents of the beginning of the first decade of the century. A preponderant Strategic Air Command—like the

Great White Fleet—appeared a device for performing as a world power without getting too deeply enmeshed in the complex, dangerous, interior affairs of Eurasia.<sup>18</sup>

Though comprehended by few at the time, the seemingly endless capabilities of the new Air Force were based on the doctrinal holy trinity of globalism, indivisibility, and decisiveness. An independent global striking force could bomb anywhere in the world at any time, with overwhelming power on a moment's notice. Furthermore, airpower was indivisible, a single entity, to be managed by an airman flexibly across the strategic and tactical spectrum to best accomplish the mission. Finally and most important, properly employed and undistracted airpower would render decision in war at less cost.

Technology was both an instigator and messiah of the romantic air advocates. Married to machines, the World War II generations understood how numbers and technology altered the calculus of battle. If numbers were unaffordable, then, preferably bigger, higher, faster, and farther strategic bombers would make up the difference. In short, an institutional technological zeal would make doctrinal dreams become reality. This would remain the Air Force's primary solution to doctrinal shortfalls.

#### KOREAN WAR

The devotion of limited funds to build the great strategic striking force left tactical air forces ill-equipped and unprepared for the Korean War. It required improvisation by fighter leaders, a hard and embarrassing lesson they would not soon forget. Prohibited from striking China, Strategic Air Command (SAC) bombers

came reluctantly to Korea and conducted an eight week strategic bombing campaign which destroyed virtually all strategic targets of significance.<sup>19</sup> Airpower denied the enemy victory, but could not provide the same. While the air absolutists found the limitations placed on airpower (and the war) intolerable, they could again claim a starring role on grounds that the threat of bombing dams and using atomic bombs induced the armistice.<sup>20</sup>

The long term implications of the Korean War on Air Force culture were twofold. First, junior World War II cohorts commanded the lower echelons; while a new Korean War generation of primarily fighter pilots, less touched by absolutist beliefs and total war, gained formative experiences in the complexities of this limited war. Second, the war highlighted a split growing between the bomber and fighter communities. The fighters' Tactical Air Command (TAC) paid the price of neglect during the Korean War. Yet SAC continued to receive more funding and preference. To the senior Air Force leadership of absolutists, the Korean War was an unfortunate anomaly, in which strategic bombers were restrained from achieving total victory. As one analyst observed: "The MacArthur legacy was taken over less by his own service than by...the Air Force."<sup>21</sup> Yet, several "pragmatists," primarily in the tactical air forces, saw war and airpower in less unambiguous terms.<sup>22</sup> Because war contained conflicting interests, changing priorities, and distractions, they argued airpower must be multi-dimensional and flexible, often requiring improvisation. Pragmatists accepted more readily the realities of limited war and the Clausewitzian tenet of war as a political instrument.

## MASSIVE RETALIATION AND THE RISE OF SAC

In the 1950s President Eisenhower's "New Look" elevated SAC and its absolutists to the pinnacle of military spending and influence.<sup>23</sup> Forceful senior bomber cohort General Curtis E. LeMay commanded SAC from 1948 until 1957 and built an impressive global striking force into the nation's first line of defense. In the image of LeMay's Pacific War 20th Air Force, SAC became highly centralized, rigidly controlled, and singularly focused on a supreme air assault versus the Soviet Union.<sup>24</sup> Institutionally significant, SAC sometimes let pride cloud judgment and elitism create insularity. LeMay and his organization's growing arrogance alienated not only less fortunate sister services, but also the subordinated fighter community in TAC. SAC received better promotions, more funding, and better facilities than the rest of the military.<sup>25</sup>

The SAC-dominated Air Force during the 1950s and early 1960s also chased the doctrinal tenets of globalism, decisiveness, and indivisibility. SAC pushed for bigger, higher, faster, and longer range strategic bombers and tankers to gain global access. As growing numbers of bombers tried to keep pace with the proliferation of atomic bombs and targets, LeMay built a modern command and control center necessary to manage his dangerous arsenal. SAC's "positive control" demanded every order be verified, that no crew acted without permission in the prescribed form, and that all officers followed manuals and checklists without exception. His centralization of reconnaissance, maintenance,

intelligence, and targeting all streamlined, what LeMay called the conduct of a more efficient "Sunday punch" that would be decisive. Lastly, the SAC-led Air Force proclaimed "indivisibility" in that its nuclear war forces were capable of deterring, fighting, and winning war at any level.

The fusion of military and foreign policy in the Cold War era proved somewhat bewildering for Air Force absolutists. Although the Eisenhower administration asked the Joint Chiefs of Staff (JCS) to consider "a wide range of domestic and international economic and political factors" in their advice, Air Force senior leaders generally refused and provided strictly military advice that protected Air Force interests.<sup>26</sup> Air Force leaders still perceived themselves as action-oriented operators versus strategists, and as a consequence focused on building the chief military arm of the emerging national security state. The operational bias in SAC translated into little participation by the command in professional military education, advanced degrees or assignments outside of SAC. LeMay insisted SAC personnel stay in SAC if they wished to "really learn about airpower."<sup>27</sup>

The neglected fighter cohorts in TAC fought for institutional survival for a decade and a half. To advocate missions that supported the Army or conventional war was counter to the governing massive retaliation policy and the accepted doctrinal dominance of atomic strategic airpower. TAC sought a nuclear role for its institutional survival, but risked absorption by SAC as budgets declined, unless it found a mission outside the scope of SAC. Commander of TAC, pragmatist fighter General O.P. Weyland, warned

in 1955 that the strict nuclear option was plagued with "myriads of political, psychological, and other implications," and that the Air Force needed to be "psychologically prepared" for limited wars and retain a variety of munitions.<sup>28</sup> But SAC remained dominant for a number of reasons ranging from the perceived "bomber gap" of 1956 and the Sputnik scare of 1957 (and subsequent "missile gap") to a growing nuclear target list and the promotion in 1957 of General LeMay to Vice Chief of Staff.<sup>29</sup>

In 1957 LeMay turned SAC over to ultra-absolutist senior bomber General Thomas S. Power. Under LeMay SAC expanded from 837 to 2,711 aircraft and from 21 stateside bases to 38, with an additional 30 bases overseas. SAC entered its heyday professionally and emotionally attached to manned bombers.<sup>30</sup> Only Eisenhower's August 1959 edict prioritizing Intercontinental Ballistic Missiles (ICBMs), the Soviet's downing of a U-2 spy plane by a surface-to-air missile (SAM) in 1960, and increasing competition from the Navy's Polaris submarine ballistic missiles convinced the Air Force to see the virtue of ICBMs.

The Air Force's expanding arsenal fostered advocacy for a "counterforce" strategy, which would aim overwhelming numbers of nuclear weapons at strictly military targets (as in WWII) with great precision, in hopes of preempting damage from follow-on enemy strikes as well as inducing the Soviets to restrict the targeting of cities too. But General Power and SAC opposed counterforce in 1960 on grounds that anything less than an ability to destroy enemy society completely would weaken deterrence. Power would eventually accept the counterforce strategy which demanded more strategic



weapons and delivery systems for SAC. But like other senior bomber cohorts, he still insisted on overwhelming military superiority necessary to retain the strategic initiative and prevail in any war.

The appointment of General LeMay as Air Force Chief of Staff in 1961 marked the apogee of bomber dominance in senior positions. The new Chief relieved non-bomber generals from command and key Air Staff positions, and further exacerbated relations between SAC and TAC.<sup>31</sup> As Director of Military Personnel, fighter Brigadier General Albert P. Clark, recalled:

SAC was bleeding us white. Pover was CINCSAC [Commander-in-Chief Strategic Air Command] and didn't have any patience for anything else in the Air Force. He was absolutely single-minded on SAC, and ruthless in that regard. Whenever I tried to get any policy implemented that in anyway infringed on what Tommy Pover thought was right for SAC, he would just call up General LeMay and say, "Get Clark off my back," which usually happened. So it was a pretty tough time to try to protect any equity in personnel programs. We had an elite air force within an air force. It was an unhealthy situation. People in SAC were frozen. They were trying to get every good man in the Air Force and nobody ever came out of SAC. So everybody else was second-class citizens. It was a difficult time for anybody to run a personnel program.<sup>32</sup>

The SACercizing of the key leadership positions in the Air Force in the early 1960s alienated not only non-SAC elements, but also furthered dogmatic doctrine. The Air Staff was never more populated with absolutists zealous in their pursuit of technology to vindicate a timeless faith in the efficacy of strategic bombing. Manned bombers remained at the top of their wish list (over ICBMs), and their confidence grew with the size and lethality of their force. In June 1961 an Air University Research Studies Institute study boasted:

...there would be no necessity for expensive "balanced forces" and "combined operations" if the proven irrefutable fact that aerospace power is the dominant and decisive force were accepted.<sup>33</sup>

The comfort of doctrinal preeminence during the 1950s now fostered a conservative attitude that demanded nuclear superiority. This, in turn, fueled the strategic arms race and hindered the development of conventional war capabilities within the Air Force.<sup>34</sup>

#### FLEXIBLE RESPONSE CHALLENGES ABSOLUTISTS

The new Kennedy administration favored a choice between holocaust and humiliation, and its aggressive new policy of flexible response challenged the legitimacy of massive retaliation.

Kennedy's agent of change within the Defense Department was the resolute taskmaster, Secretary of Defense Robert S. McNamara. McNamara demanded subordination of service interests to national goals, military judgment to quantified analysis, and military chiefs and service secretaries to defense secretaries. He took systems analysis and used it as a weapon to explore tradeoffs between costs and capability. Accompanied by a growing host of "whiz kids," he introduced managerial innovations and a torrid pace of change that left the services dumbfounded. Few expected the new Defense Secretary to wield the full authority of the Defense Reorganization Act of 1958 so quickly and so thoroughly.

The Air Force's honeymoon with the new administration proved short-lived. McNamara recalled the Air Force was "so parochial that they were acting contrary to their own interest and the interests of the nation."<sup>35</sup> Eugene M. Zuckert, a long time Air Force associate and now its Secretary, reflected in 1965 that "It

took some time for our old attitudes and outlooks to change....new hardware was welcomed with more enthusiasm than were new ideas in the realms of strategy, concepts, and doctrine." He noted especially in 1961 that some senior Air Force leaders:

...were still approaching top-level problems of national security in terms of the concepts, doctrine, and study methods of the early 1950s. There were too many who took a parochial view of the big problems of planning, programming, and budgeting; who refused to believe that national policy and strategy were what the administration said they were—not what an element of the armed forces thought they ought to be. I suppose this was a hangover from the ten or more years when we had been the principal guarantor of Free World security and in many ways the favored service.<sup>36</sup>

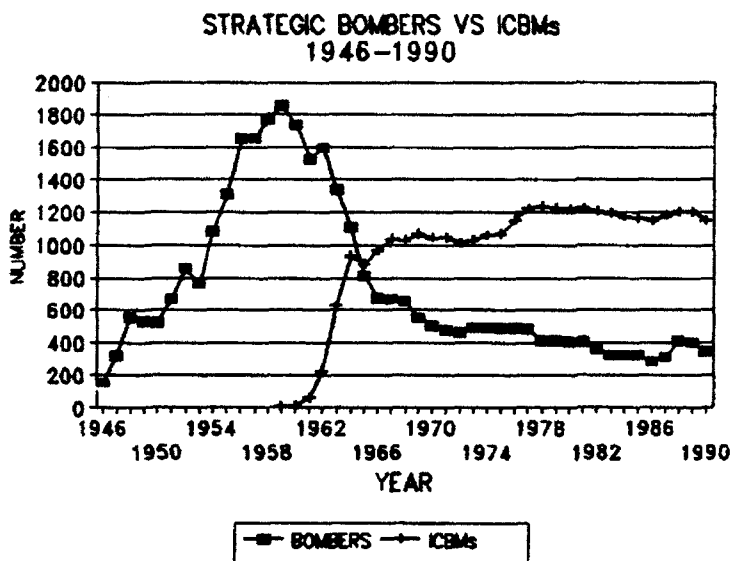
Kennedy's people found the Air Force striving stolidly for strategic nuclear supremacy with a doctrine generally suitable only to unleash it, should deterrence fail. JFK wanted options.

McNamara determined to give the President a flexible military instrument by any means, regardless of the methods or opinions of the venerable World War II generals. The Defense Secretary flooded the services with short suspense projects and exploited interservice differences while he formulated policy. The assault left the uneducated Air Force absolutists somewhat bewildered and reactive. As one senior World War II general remembered, "We spent most of our time in the Air Force trying to cope with McNamara and little towards enhancing airpower."<sup>37</sup>

Noting the institutional crisis his Air Force faced, and appalled by the dogged resistance from many of his "older officers who...did not really see why it was necessary to buttress our positions," Secretary Zuckert called for a conference in December 1961 to "try to find out what was wrong with the way the Air Force

was doing business...<sup>38</sup> As a representative of the Secretary of Defense, Zuckert was finding that the Air Staff was too doctrinaire, relied on "military judgment" versus facts and figures, was generally poor with statistics, and was not very articulate or persuasive.<sup>39</sup> But Zuckert could do little to the now belligerent senior cohorts who perceived the threat of doctrinal change as sacrificing a method they had proven with great investment, all for something unproven and championed by young civilians. The senior generation remained suspicious of civilian defense analysts and intellectuals as well as OSD civilians.<sup>40</sup>

Though McNamara initially supported the Air Force's endorsement of a counterforce doctrine, he did so only because it might offer the option of rational control of nuclear operations against strictly military targets. As the total costs of rearming America for a flexible response capability became apparent, the Defense Secretary began as early as 1962 to accept the possibility of strategic parity with a resolute Soviet Union—much to the chagrin of Air Force absolutists. McNamara also challenged the cost-effectiveness of LeMay's favorite—the expensive, but vulnerable B-70 supersonic strategic bomber. The Secretary displayed a preference for the cheaper ICBMs near the end of 1962 by cancelling the B-70 and SAC's Skybolt air-to-surface nuclear missile. McNamara began procuring ICBMs as the major strategic deterrent (see graph 1). Symbolically, the Air Force accepted its last B-52 and B-58 as its first Minuteman ICBM site became operational.



Graph 1<sup>41</sup>

1962 was also significant because of the Cuban Missile Crisis. Chief of Staff LeMay predictably advocated massive air strikes accompanied by an invasion of Cuba.<sup>42</sup> Though the President chose a more politically practical strategy, LeMay and his fellow absolutists remained convinced U.S. strategic airpower had deterred the Soviets.<sup>43</sup> McNamara and others felt that newfound U.S. conventional forces were responsible for the success.<sup>44</sup> Regardless, the crisis stimulated new resolve within the Kennedy Administration to secure arms limitations and treaties that would arrest the spiraling and dangerous arms race. Air Force absolutists were reluctant to disarm or sacrifice strategic superiority they felt so necessary for victory. "While I believe in the preservation of military superiority," General Power stated at the time, "I submit that we can no more arm and disarm at the same time than one can dress and undress at the same time."<sup>45</sup>

The complexities of the new era were to frustrate further the senior absolutists. In addition to the demise of the new strategic

bomber and the relaxation of the drive toward strategic supremacy, the senior generation faced growing involvement in a limited war in Southeast Asia (SEA). In viewing the FY 1963 budget, LeMay complained about this conventional trend:

I think that your strategic forces should come first....I worry about the trend as established by this year's budget....I do not think you can maintain superiority in this field with that sort of a program....I point out that you cannot fight a limited war except under the umbrella of strategic superiority.<sup>46</sup>

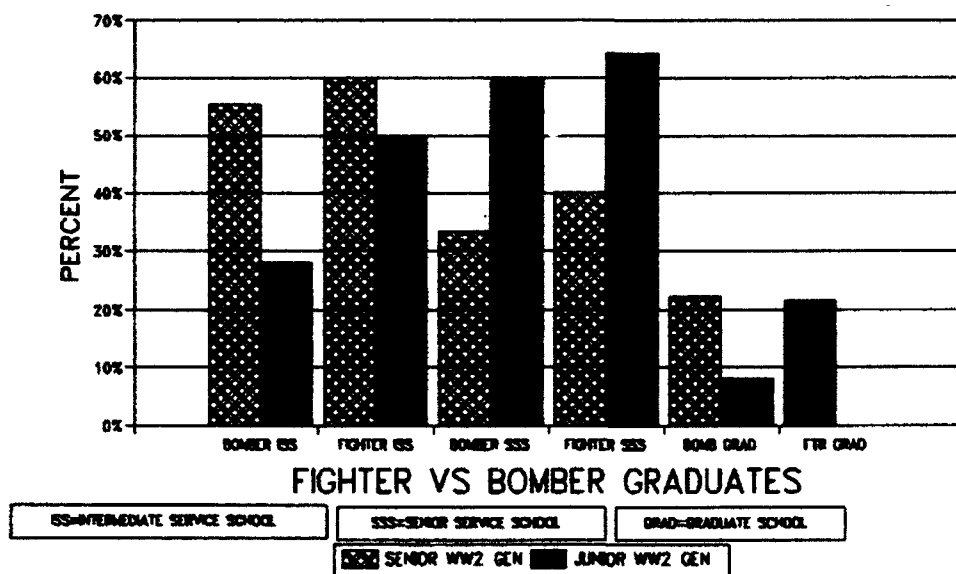
Nevertheless, LeMay relented when challenged by an Army willing to build its own air force for conventional operations. TAC began to grow. When pressed by President Johnson in 1964 for advice, LeMay remained absolute by advising his Commander-in-Chief to "stop swatting flies and go for the manure pile."<sup>47</sup> The veteran of strategic bombing campaigns advocated a massive aerial assault against 94 targets in North Vietnam.<sup>48</sup> LeMay later argued that assault would have ended the war "real quick" (in 10 days). However, the absolutist doctrine of using relentless strategic bombing to achieve decisive ends, right or wrong, was fast falling out of fashion.

The seeds of SAC's greatness were now leading to its demise. Handling nuclear weapons dispersed around the world required close supervision and strict procedural adherence to maximize control and minimize risk. It fostered a closely supervised, regimented, and regulated daily routine of constant drilling, repetition, and "positive control" (don't go unless told). Dispersal to remote locations and alert rates of 50% followed the Berlin Crisis of 1961. Seventy-four hour work weeks of disciplined behavior with

reduced flying were the norm. This environment tended to stifle innovation, risk taking, and creativity. The cumulated psychological effect on aircrews was a curious mixture of stress and boredom.<sup>49</sup>

Insularity was not just personal, it was institutional. SAC's enduring focus on a single mission, single strategy, single weapon, and single enemy promoted monistic thinking and intense camaraderie. In return for their many sacrifices, some SAC officers received spot promotions at a rate unavailable to others in the Air Force. Often a short term advantage, in the long run it automatically placed many of these early promotees up for subsequent promotion against more senior officers who had a wider experience of command. This resulted in some inadvertent promotion passovers for SAC's spot-promoted officers, especially aircrews. In part to mitigate these unfair comparisons, but more likely because of insular pride, SAC favored "taking care of its own" by keeping its people within the command. A proud but indicting saying was prevalent: "Once in SAC always in SAC; once out of SAC never back."<sup>50</sup> This insularity militated against the breadth of experience necessary to meet the new challenges of flexible response and Capitol Hill; LeMay lamented this policy after retirement.<sup>51</sup> Graph 2 demonstrates the impact of these trends on graduate education and professional schooling of the fighter and bomber World War II generations.

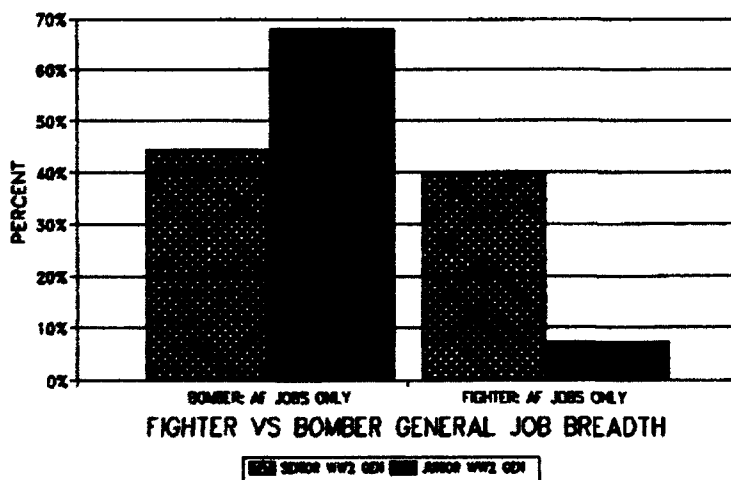
## AIR FORCE FOUR STAR GENERALS ADVANCED SCHOOLING



Graph 2

Not only were fighter pilots made more available for this schooling, but Graph 3 shows how the future bomber generals had less breadth in their assignments than their fighter cohorts.<sup>52</sup>

## AIR FORCE FOUR STAR GENERALS INSULARITY: JOBS BEFORE 4 STARS



Graph 3



Adding to SAC's problems was low retention. SAC was having difficulty retaining its post-Korean War generation of pilots. Many were disillusioned by the sight of many older officers, senior majors or lieutenant colonels, still sitting on alert in much the same job as the younger officers. One study listed "isolation from families, boredom from crew routine, lack of career motivation, and the demanding alert status" as the major ailments.<sup>53</sup> This word was getting out to many pilot training students, who in a 1965 survey overwhelmingly listed SAC at the bottom of their preference sheet.<sup>54</sup>

By 1965 the dominant senior bomber generals had lost influence in Washington. Secretary Zuckert recalled the intransigence: without a "real reflective quality in the military.... We butted our heads against a stone wall and just kept doing it and doing it and doing it..."<sup>55</sup> Senior Air Force leaders couldn't convince their civilian boss that business management principles sometimes were unsuited to the equivocal ends of defense policy; that the metaphysical and psychological dimensions of war were not quantifiable. But McNamara defined the parameters of worthiness. In 1964 LeMay finally admitted his dilemma to Congress. "It is becoming more and more difficult to get experience and judgment ground into the solutions of problems," he testified. "We have to try to translate experience and judgment into cold hard facts to win a case. Sometimes this is very difficult to do."<sup>56</sup>

LeMay was not alone in his feelings. Many in the World War II generation, confident in past values and methods that had

assured victory and subsequent U.S. security, questioned the need for change. But their time was drawing to a close. As one Korean War generation air staffer noted of the older group: "Instead of hostility, it would be more fruitful for the military strategist to learn more about the tools of analysis in order to apply them both to his own studies and in cooperation with the civilian analyst."<sup>57</sup> The fall of the senior absolutists in the mid 1960s had a telling influence on the future leadership.<sup>58</sup>

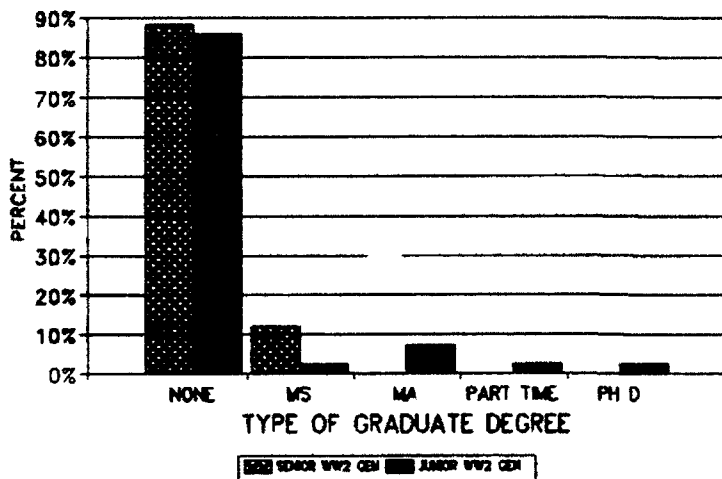
#### THE VIETNAM ERA CHALLENGES THE JUNIOR COHORTS

Salty junior cohort bomber General John P. McConnell replaced Lemay in February 1965, and within weeks was confronted with demands for the use of airpower in Vietnam. Like their senior predecessors, the operationally-oriented McConnell and his fellow junior absolutists endorsed a massive strategic bombing campaign against the economic war-making capacity and will of North Vietnam. McNamara recalled the "Strong school of thought in the Air Force that you could win the war in Vietnam with air power; a constant exaggeration of the potential use of air power in Vietnam, with a constant overstatement of the results of air power."<sup>59</sup> Air absolutists saw a counterinsurgency war in the South as defensive, long, and agonizing. The initiative could best be seized with a vigorous application of airpower against North Vietnam, which may well preclude the need for ground troops.

But the junior World War II generation suffered from inherent difficulties that would also limit their ability to contend with the challenges of the Vietnam era. World War II and the Korean War

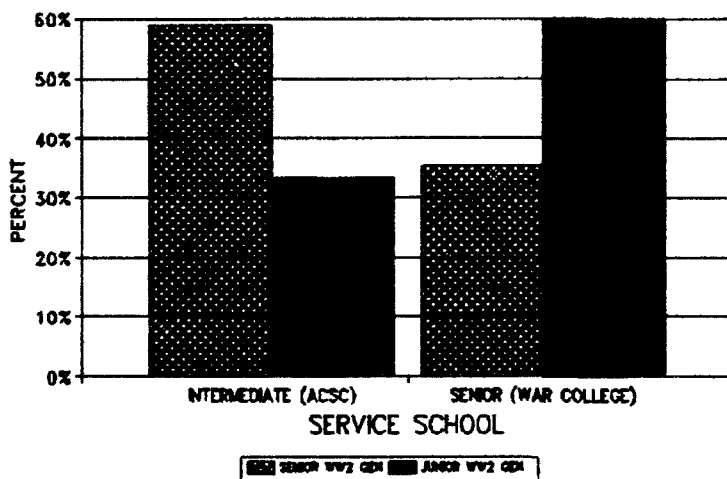
had interrupted opportunities for undergraduate, graduate, and professional military education (see graphs 4 and 5):

#### AIR FORCE FOUR STAR GENERALS GRADUATE EDUCATION



Graph 4<sup>60</sup>

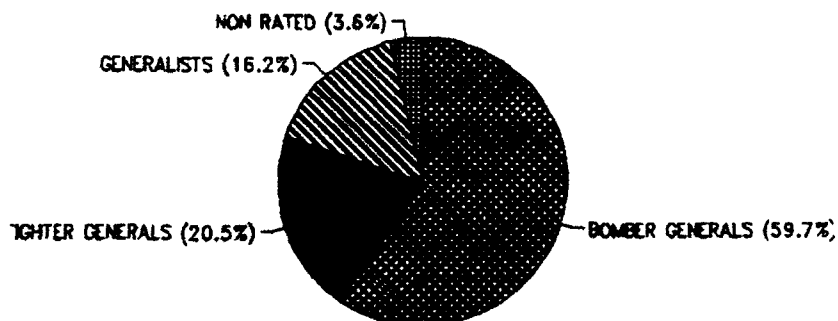
#### AIR FORCE FOUR STAR GENERALS PROFESSIONAL MILITARY EDUCATION



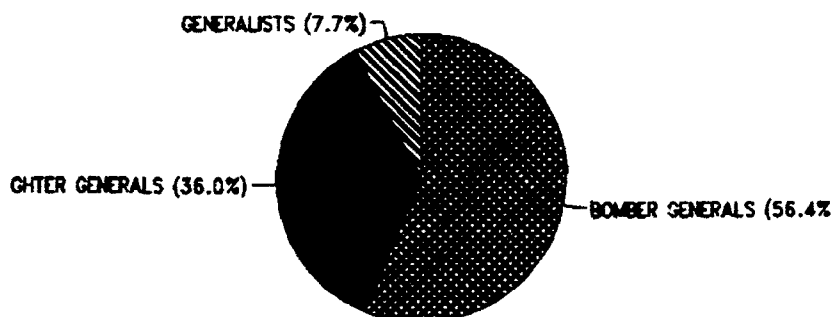
Graph 5

The junior generation was also a product of the insularity fostered by the senior generation in the 1950s and early 1960s. Graph 6 reflects the distribution of four star generals in the World War II generations.

# DISTRIBUTION OF FULL GENERALS SENIOR WORLD WAR II GENERATION



# DISTRIBUTION OF FULL GENERALS JUNIOR WORLD WAR II GENERATION



Graph 6

Although there was a slight decrease in bomber pilot dominance, the effects of insularity is evident in the large decrease in the number of "generalists." The Air Force was compartmentalized during the period of SAC's ascendancy. An analyst noted that in 1953 over 40% of all Air Force generals on active duty had at least one senior assignment outside their fighter, bomber, or support community. By 1972, the figure was less than 10%.<sup>61</sup> The insularity of the fighter and bomber communities was growing junior cohorts of narrow experience in an environment that demanded breadth of experience and knowledge.

After witnessing a steady erosion of Air Force influence over defense policy, McConnell hoped to regain sway through his longstanding friendship with Lyndon Johnson. But Johnson hired McConnell more for the latter's promise to remain loyal to the President, than on a desire for advice.<sup>62</sup> Johnson remained suspicious of the military and its narrowness of perspective. Frustrated at the air absolutists' dogged insistence on an all-out bombing offensive, Johnson chided them. All he heard from them was

Boab, boab, boab.... Well, I want to know why there's nothing else. You generals have all been educated at taxpayers' expense, and you're not giving me any ideas.... I want some solutions. I want some answers.<sup>63</sup>

Johnson's acceptance of using airpower as a closely controlled instrument for political signalling violated traditional military conceptions of strategy—the destruction of the enemy's forces and of his ability to wage war. The desire to use maximum plausible means to seize the initiative and end the war with overwhelming force ran deep in the veins of the World War II generations. Johnson's use of this "limited war theory" of coercing the enemy to negotiate frustrated absolutists. McConnell reportedly lamented after a 1967 Rolling Thunder (Johnson's on and off bombing campaign of North Vietnam) briefing: "I can't tell you how I feel.... I'm so sick of it.... I have never been so goddamned frustrated by it all."<sup>64</sup>

Neither the military nor the administration would ever dream that, in Johnson's words, "this raggedy-ass little fourth-rate country" would be able to resist the threat or use of American military power.<sup>65</sup> Both the military and the civilian leadership

preferred to accommodate events to fit their different notions of strategy. The civilians believed, then hoped, that the enemy would break at the next increment of force. For the military, operational successes took precedence over political signalling. The military sought maximum acceptable force; the civilians desired minimum practical force. Arrogance of American military might coupled with poor civil-military relations fostered pursuit of two disparate notions of means at the cost of rigorous scrutiny of assumptions, objectives, costs, and strategy.

At home, General McConnell now realized that challenges of the new era were stressing his institution. Growing involvement of tactical air forces in SEA necessitated a rebuilding of TAC. Yet, he inherited a bomber-dominated senior leadership and a long-subordinated minority of fighter generals. McConnell committed himself to broaden his most promising generals and to raise the capital of the fighter generals.<sup>66</sup> Still, the senior theater commander, the Commander of Pacific Air Forces (PACAF), would remain a bomber position—where future candidates for Chief could get their "tactical experience" and supervise fighter subordinates who waged war.

The disillusionment of McConnell with both limited war theorists and the performance of airpower became increasingly apparent in his later speeches. Hindered by inadequate technology, poor application, and the lack of adequate intelligence and bomb damage assessment, airpower was not performing up to expectations. At a Pentagon press conference in February 1967, the Air Force Chief admitted that "Airpower alone cannot bring the enemy to the

conference table, but it has reduced his fighting capability and morale...<sup>67</sup> Indeed, massive doses of airpower were forestalling an enemy victory, yet not achieving the decisiveness that enthusiasts had hoped. Privately, absolutists rationalized limited efficacy as a product of civilian mismanagement.

A depressed McConnell retired after having made considerable progress in broadening his successors.<sup>68</sup> Former Commander of SAC, junior bomber cohort John D. Ryan, succeeded the ailing McConnell. Ryan was also in the SAC mold—a terse, no nonsense, aggressive field commander who eschewed the social and political atmosphere of Washington. This ardent proponent of strategic airpower was blunt, always honest, and generally respected the tactical competency of his field commanders—though he despaired how Vietnam was “ruining SAC.” Ryan was anxious to end the war.<sup>69</sup>

Ryan recognized the value of his “broadening” experience, and expanded the program begun by McConnell. He kept the PACAF Commander position occupied by bomber cohorts, but sent the most promising generals to 7AF to get combat leadership experience. Furthermore, he pushed career broadening assignments down to talented younger generals. The result was a growing number of Korean War generation “generalists,” whose extensive experience fostered understanding and skills more conducive to effective high command and staff in the coming era.<sup>70</sup> Still, Ryan’s junior WWII generation would have to extract the United States from Vietnam “with honor.”

By the time Ryan became Chief in 1969, SAC had reached its institutional culminating point. SAC had only reluctantly entered

the Vietnam conflict. Air Force leadership feared the demand for B-52s in SEA would detract from the primary mission of nuclear deterrence. Moreover, loss of a B-52 in combat might compromise secret systems on board. As ICBMs and submarine-launched-ballistic-missiles (SLBMs) assumed a larger role in nuclear deterrence, and as the United States dropped its insistence on strategic supremacy, the B-52 became more expendable. SAC insisted, however, that it retain control of the B-52s in SEA, despite Air Force doctrinal tenets (indivisibility) concerning centralized management of theater airpower. SAC began to fly benign "Arc Light" bombing missions in 1965 over South Vietnam. It closely supervised all sorties, and required all cockpit transmissions be recorded. This resulted in aircrews passing notes "ankle deep" in the cockpit so as not to indict themselves.<sup>71</sup> Fighter generals who managed the air war in SEA tried unsuccessfully to gain control over the B-52s.

The insatiable demand for pilots in Vietnam was the perfect opportunity to "reunite the Air Force."<sup>72</sup> The air arm decided to spread the burden evenly. While SAC crews went to SEA for up to six months at a time, the fighter pilots went for 100 missions over North Vietnam or one year.<sup>73</sup> TAC went to Vietnam for one year 10 times over; SAC for six months 20 times over. While that policy did little for institutional memory, it did facilitate exchange between SAC and TAC. Combat losses, the retirement of the World War II and Korean pilot bulge in the mid 1960s, expansion of forces and sorties, an explosive requirement for forward air controllers, and short tour lengths all contributed to a demand for pilots that



far exceeded supply. The Air Force cut tour lengths in Europe and TAC, placed navigators in rear cockpits versus pilots, and shortened training to meet the demands.<sup>74</sup> As a result, many in SAC were able to join the Tactical Air Forces (TAF) during the war.

SAC pilots who entered fighter units had to break into a tough, insular culture that Thomas Wolfe observed, followed "a rigid set of beliefs I called the 'code of the right stuff,'" and where "everyone, friend or foe, was judged by four standards: courage, skill, coolness, and eagerness for combat."<sup>75</sup> It was difficult for many to make the transition to the aggressive, individualistic ethos that valued flying skills in a more dynamic arena as the first measure of acceptance. Most suffered from minimal transitional training, a few did very well, but many remained ostracized.<sup>76</sup>

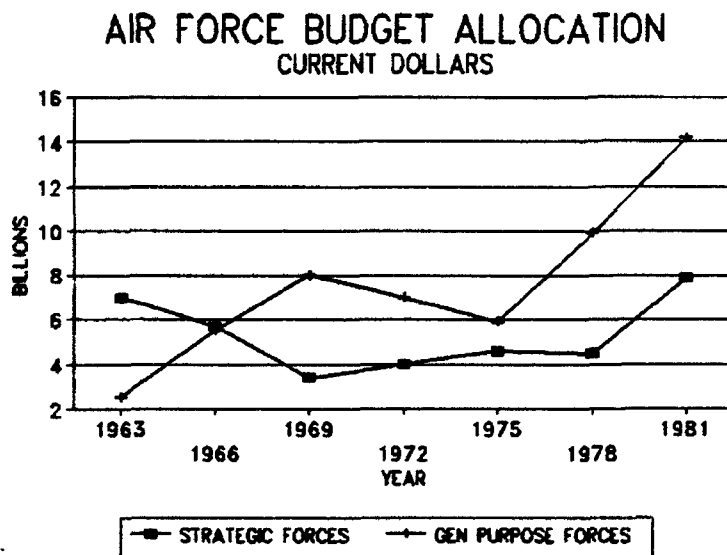
The clash of cultures was further evidenced by what some lower echelon fighter commanders perceived as oversupervision and control, lack of empathy, flexibility, or understanding "tactical airpower [which had been] ...subordinated to the prejudices of the SAC pilots and the bomber generals."<sup>77</sup> Many of the higher echelon fighter commanders in Vietnam voiced similar concerns, especially with oversupervision and massive reporting requirements.<sup>78</sup> Fighter culture favored decentralization and delegation. As the war dragged on, bomber cohort PACAF commanders eventually loosened their grip.

#### THE RISE OF THE TAF IN THE VIETNAM ERA

Until December 1972 fighters had conducted most of the risky bombing in North Vietnam.<sup>79</sup> Though SAC performed well in the

relatively benign environment of Arc Light, it was understandably reluctant to risk its great bombers against the SAM and MIG threat up North. From April 1966 on the B-52s occasionally ventured into the North, and even had SAMs fired at them. These strikes always received top priority for protection by the tactical forces of 7th Air Force (7AF).<sup>80</sup> But SAC followed a "no sweat" procedure, whereby if there were any active enemy SAMs or MIGs in the area, the B-52s generally aborted their mission. Battle-hardened fighter crews, who ironically conducted most of the strategic bombing, noted this timidity.<sup>81</sup>

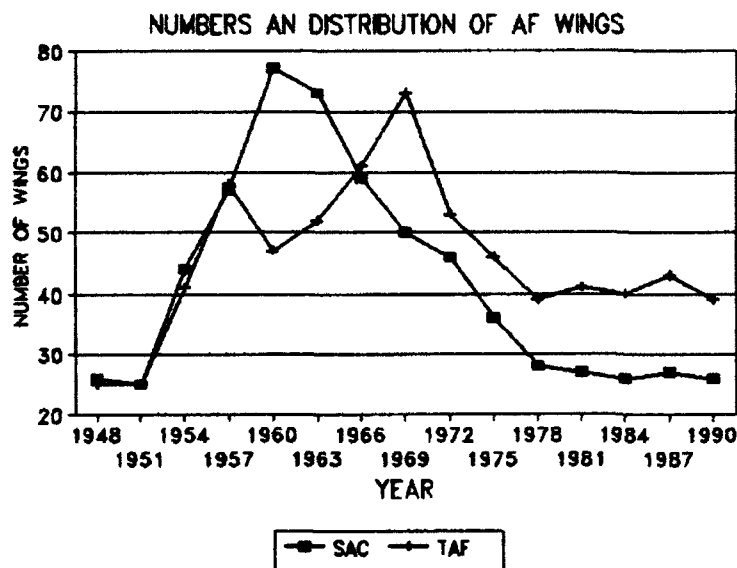
If the Vietnam War split SAC between nuclear and conventional commitments, it rejuvenated the TAF. Budget preeminence shifted to tactical (general purpose) forces by 1966:



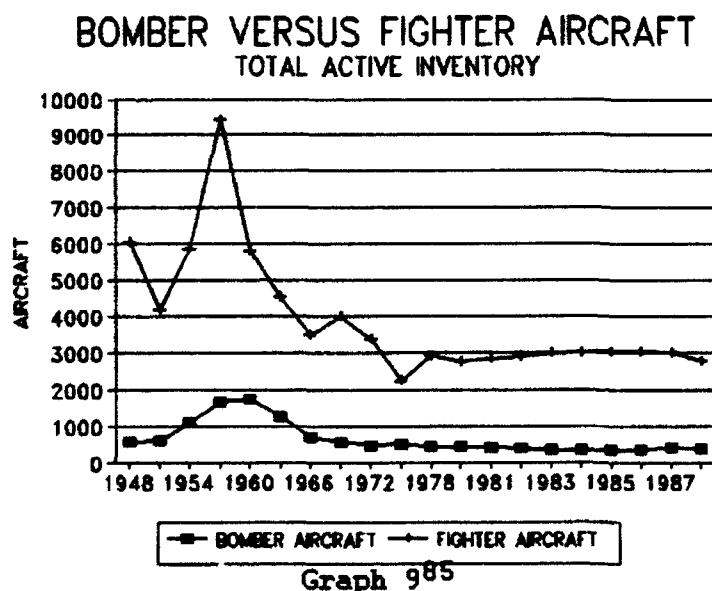
Graph 782

The tactical fighter force doubled in size between FY1961 and FY1965.<sup>83</sup> Flexible Response, and especially the Vietnam War,

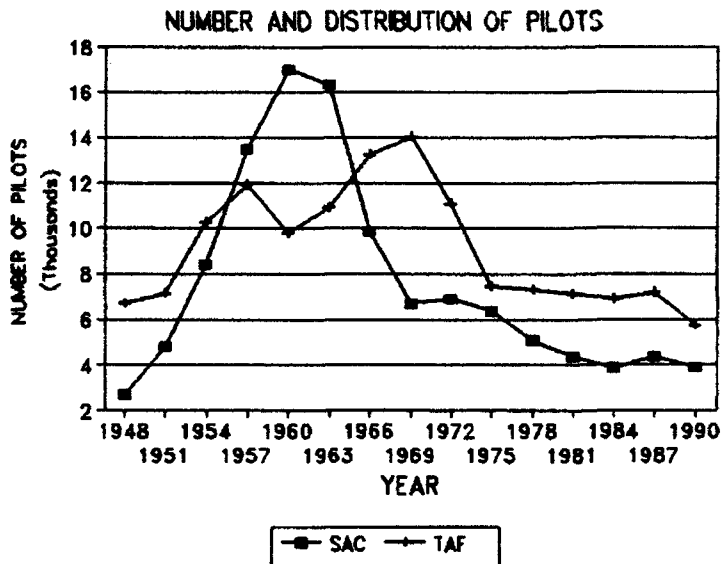
fostered the growth of tactical wings and the reduction of SAC wings:



The force structure shift was also evident in the number of fighters and especially the shrinking number of bombers available to fly :



The types of cockpits available meant a shift in the flying population:

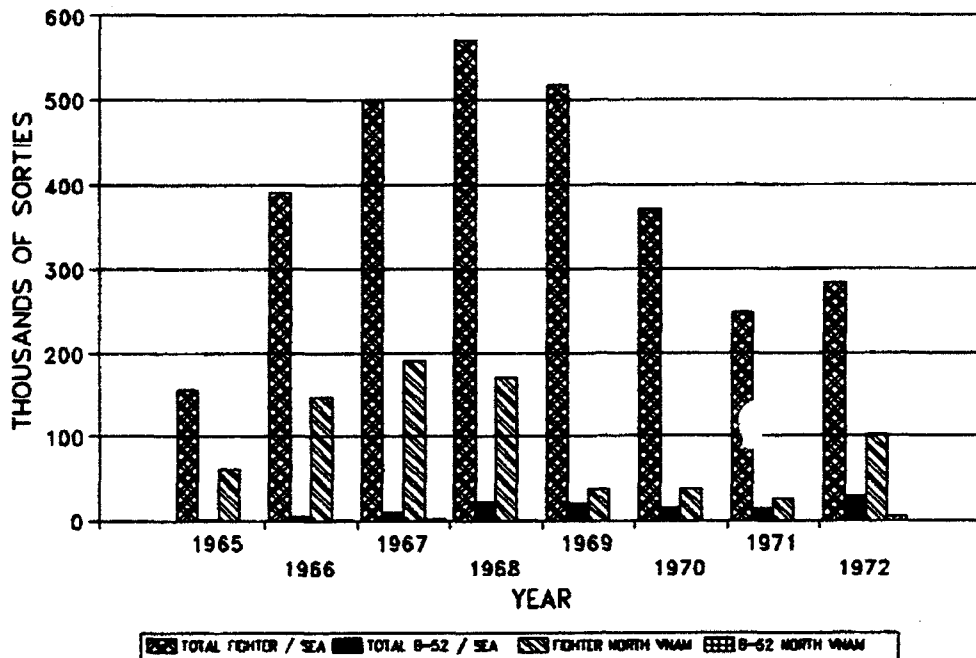


Graph 10<sup>86</sup>

More fighters meant more fighter pilots who manned more fighter wings and provided more opportunities for leadership and command. The fighter community gained more combat experience, exposure, and tapped into the traditional frontline Air Force mission of strategic bombing.<sup>87</sup>

Perhaps the most important of the above, fighter pilots and commanders were getting more of that institutional commodity precious for promotion—combat experience, especially over North Vietnam:

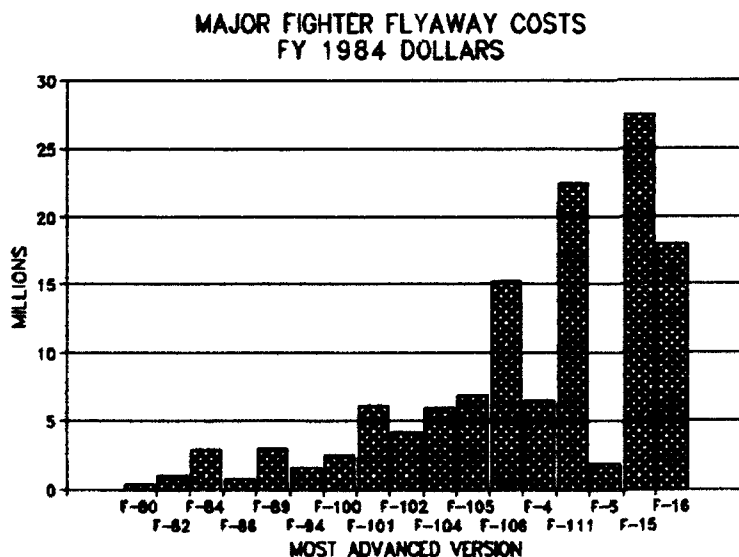
# COMBAT SORTIE COMPARISON B-52 VS FIGHTER/RECCE



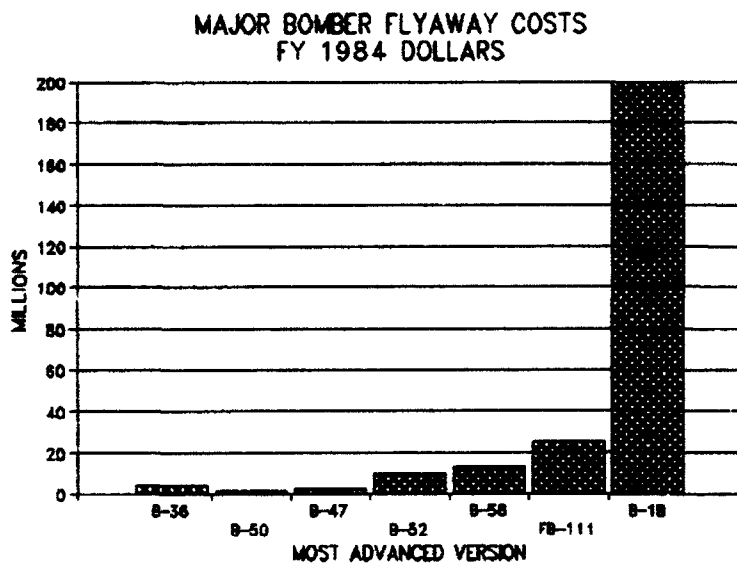
Graph 11<sup>88</sup>

Technology also played a strong role in the shifting of power from the bomber to the fighter communities. From the Korean War to action in Vietnam the Air Force had designed and developed only one fighter, the nuclear-capable F105. The Vietnam war demanded change, as fleets of fighters: F-4s, F-5s, A-7s, and F-111s joined the F-105s in the air war. Air refueling gave fighters the range; technology gave them the payload, accuracy, and survivability to deliver more weapons, farther, and more precisely with greater flexibility.<sup>89</sup> The atomic bomb had created the ascendancy of strategic bombers; now precision-guided munitions (PGMs) offered preeminence to the fighters. Previously constrained to lesser missions, fighters with air refueling and PGMs were gaining access to the "decisive" and sacred mission of strategic bombing.

Requests from Southeast Asia began to make serious inroads into the Air Force research and development budget, previously dominated by SAC programs. The Air Force forwarded formal proposals for an all-purpose, later all-weather aircraft (TFX) beginning in 1961, an air superiority fighter (FX) in February 1966, a close air support aircraft (AX) in September 1966, and an airborne lockdown radar system in 1967. With the exception of the TFX (F-111)—which saw service in Vietnam, all would eventually evolve into fielded weapons systems after the war.<sup>90</sup> McConnell despaired over the costs of the Vietnam War. "We have fought the war to a considerable extent at the expense of modernization," he noted. At the same time, there was the "sobering conclusion" that he was leaving the Air Force with the same budget in FY1970 that he had had in FY1964, and with "less airpower than when I became Chief of Staff 4-1/2 years ago."<sup>91</sup> The TAF's cheaper future weapons systems were more affordable than SAC's prohibitively expensive bombers (see Graphs 12 and 13).



Graph 12<sup>92</sup>



Graph 13<sup>93</sup>

Technological zeal bordering on fanaticism that resulted in astronomical costs coupled with ICBM rivalry undermined SAC's ability to procure its cherished future strategic bomber—a factor which a former SAC commander believed "started SAC's downfall."<sup>94</sup> Absolutists clung to unaffordable high performance specifications to achieve the elusive doctrinal decisiveness which always seemed to be just around the corner. McConnell agreed with Secretary of the Air Force Harold Brown (and Defense Secretary McNamara) that the B-70 had "pushed the state of the art" too far for an affordable capability whose survivability at high altitude against SAMs was dubious.<sup>95</sup> LeMay's effort at a low altitude replacement called the "advanced manned precision strike system" (AMPSS) and later the "advanced manned strategic aircraft" (AMSA) was not precise and neither non-nuclear capable (originally) nor affordable.<sup>96</sup> At the end of 1964 DOD planned to phase out

completely manned bombers by 1970.<sup>97</sup> A retiring LeMay admonished his Washington staff to continue to fight for a new strategic bomber, reminding them that, "it takes a long time here to get things done; however, water wears away the stone."<sup>98</sup>

McConnell was committed to the AMSA and saw its indefinite delay as his primary failing as Chief of Staff.<sup>99</sup> Faced with the inevitable retirement of aging B-52s with no prospect of funding the AMSA, McConnell, in the ultimate irony, accepted DOD's proposal that F-111 fighters, upgraded as FB-111s, replace the fragile B-52C/F models. The Chief's April 1965 proposal for 210 FB-111s to replace 345 B-52s was later reduced by the Nixon Administration to 76 FB-111s.<sup>100</sup> By the end of the war, the "gold-plated" AMSA (now B-1) program had little production support and remained, according to the new Secretary of the Air Force John M. McLucas, an "insurance in case there might be a need, so we wanted to pay as small a premium for that insurance as we could."<sup>101</sup> Sophisticated Air Force strategic bombers had priced themselves out of the market during a war when sparse research and development funds focused on more immediate concerns of munitions and avionics development, while larger production funds kept current lines open with adequate spare parts.

Nevertheless, the final chapter of the air war over North Vietnam would revive waning absolutist sentiment. On March 30, 1972 the North Vietnamese launched a major conventional invasion of South Vietnam. U.S. airpower, primarily under the guidance of the highly-educated and pragmatist fighter General John W. Vogt, new Commander of 7AF, waged an effective air campaign against the



aggressors known as Linebacker I.<sup>102</sup> Success was in large measure due to President Nixon's diplomatic isolation of the enemy and his granting of larger freedom of action to his military commanders. Good weather enhanced airpower's effectiveness against the enemy's large conventional operation. Fighters continued to conduct most of the strategic bombing operations over North Vietnam. But Vogt's most important weapons were the precision-guided munitions (PGMs) that gave Air Force fighters a lethality and "an estimated 100-fold increase in accuracy and effectiveness."<sup>103</sup> Vogt waged his intensive air campaign in coordination with the Navy and SAC. After numerous aborts on "no sweat" missions, SAC was pressured in mid-November to conduct more determined "press on" missions over North Vietnam with fighter escort.

Linebacker 1 halted in anticipation of a peace accord. However, in December the North Vietnamese reneged on their October agreements. Anticipating further constraints on his Vietnam policy from next month's new Congress, Nixon seized a fleeting opportunity to act, and asserted to his confidants:

[the enemy] has now gone over the brink and so have we. We have the power to destroy his war-making capability. The only question is whether we have the will to use that power. What distinguishes me from Johnson is that I have the will in spades."<sup>104</sup>

Finally, Nixon gave the absolutists their chance to conduct an air campaign against the will and war-making capacity of North Vietnam. He warned Chairman of the Joint Chiefs, Admiral Thomas M. Moorer, "This is your chance to use military power effectively to win this war, and if you don't I'll consider you personally responsible."<sup>105</sup>

Moorer, in turn, told the Commander of SAC, General John C. Meyer, that he wanted the people of Hanoi to hear the bombs [around the clock], but that damage to the civilian populace [and third world shipping] was to be minimized.<sup>106</sup>

Schooled in centralization, the SAC Commander resolved to run Linebacker II from his headquarters over 10 time zones away. His field command at Guam, 8th Air Force, had been planning for this operation for some time. When they received SAC's detailed executive order, they were astonished about how little resemblance it bore to their own plan, and were shocked at the repetitive routing and tactics. One 8AF staff officer recalled: "When I saw the map [showing the routing], I realized two things: that the weight of effort would be very large, and that it was not going to be a turkey shoot—unless you were on the ground up there."<sup>107</sup> SAC headquarters selected targets, determined weight of effort, and all routing north of the 20th parallel. The heavily-staffed SAC headquarters had war-gamed similar operations and probably felt the 8AF staff had their hands full coordinating with the tankers and fighters and determining routing to and from the base.<sup>108</sup> Vogt and the Navy were reportedly "furious that the B-52s had taken over the primary role and that SAC was selecting its own targets."<sup>109</sup> Theater familiarity and experience gave way to the "experts" in strategic bombing.<sup>110</sup>

SAC's rigidity and control from afar proved costly. SAC had to complete mission planning 42 hours prior to the first takeoff to compensate for coordination time, long sortie durations, and time zone differences. Mission directives inevitably arrived late with

last minute changes routine.<sup>111</sup> Since the last flight of the night was landing after the next night's mission had started engines, SAC found itself unable to adjust from one mission to the next. Meyer tried to keep the missions simple to mitigate crew inexperience and reduce the danger of mid-air collisions, and to enhance bombing accuracy. Sometimes threatening court-martial, SAC prohibited aircrews from breaking formation to avoid SAMs because it would reduce the cross-coverage of onboard electronic countermeasures.<sup>112</sup>

On the third night, despite warnings from the field, SAC directed routing, altitudes, formations, and timing that mirrored the first two nights. The 99 bombers were ambushed by SAMs and lost six B-52s with one more seriously damaged. It was SAC's darkest hour. Nixon was furious.<sup>113</sup> Admiral Noel Gaylor, commander of Pacific Command demanded to share targeting responsibility with SAC.<sup>114</sup> Meyer prohibited SAC attacks near Hanoi (after two more losses on night 4) and Haiphong and reduced to 30 bombers per night, mostly out of U-Tapao Air Base, Thailand--with double the fighter protection. After a Christmas day break, the air offensive continued in full intensity, but with planning delegated to the field. For the remainder of the 11 night campaign, 7th and 8th Air Forces coordinated (without interference from SAC headquarters) an ambitious, complex, and successful air campaign that shocked the enemy, dislocated its population, and compelled them to return to sign a peace accord.

Nixon and Kissinger agreed that Linebacker II enabled the "honorable" extraction of the United States from the conflict.<sup>115</sup>

Little press was given to the fighters that had assaulted North Vietnam day and night, had supported the B-52 strikes at night, and had taken out the most difficult targets with new long-range-navigation (LORAN) equipped fighters or with PGMs during the brief periods of workable weather.<sup>116</sup> Most attention focused understandably on the intensive B-52 raids in the battle of wills that characterized the tradition of strategic bombing. SAC wavered after the disaster of the third night, but recovered by adjusting tactics and decentralizing planning and execution of the operation.

The perceived success of the relentless bomber offensive managed by airmen revived the beliefs of the absolutists in the decisiveness of strategic bombing. Senator Barry Goldwater claimed on the Senate floor in February, 1973:

Let us hope that the strategic bombing lesson of the 12 days in December does not escape us as we plan for the future. Airpower, specifically strategic airpower, can be decisive when applied against strategic targets—industrial and military—in the heartland of the enemy regardless of the size of the nation.<sup>117</sup>

The more avid absolutists claimed strategic bombing could have won the war in 1965.<sup>118</sup> It became a firmly held conviction that vindicated their World War II experience and the veracity of their doctrine. It was an institutional consolation particularly appealing after a bitter and divisive war. But few realized that the real lesson for the future of strategic bombing had been exhibited by the fighters.

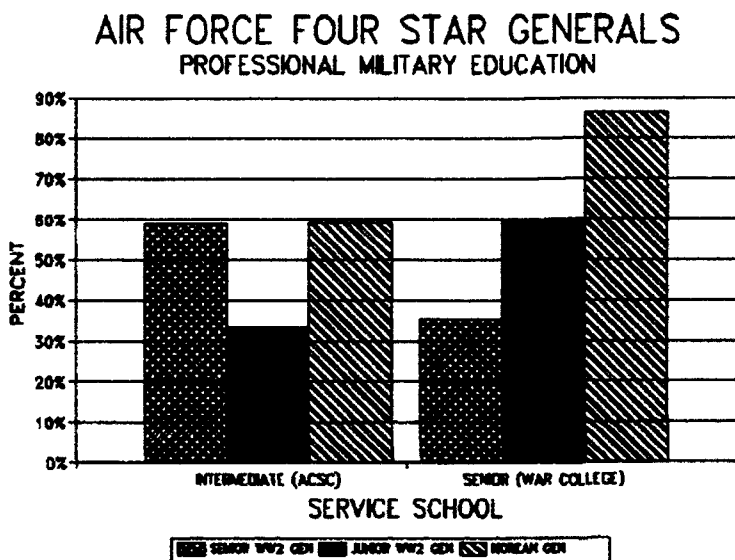
#### THE RISE TO DOMINANCE OF THE TAF

The reunification of the Air Force ended with the Vietnam War. During America's activities in Southeast Asia, the Soviets began a massive strategic and conventional force build up that by the early 1970s placed the United States at what many perceived as a decided disadvantage. SAC raced to catch the Soviets in strategic systems; the TAF packed up from Southeast Asia and moved to Europe to help fulfill the commitment in NATO's new military strategy to build a credible allied conventional force. Moreover, as aircraft became more sophisticated, it became more difficult and costly to transfer between fighters and bombers.<sup>119</sup> Dialogue and intercourse between the two communities continued to decrease.

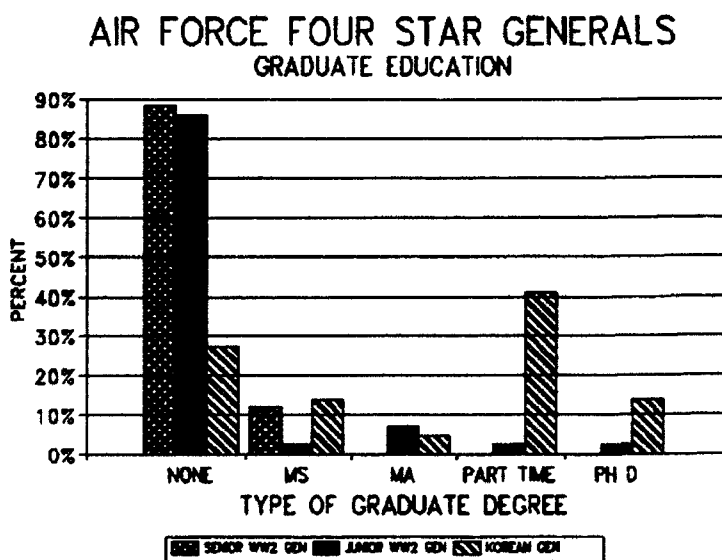
During the strategic arms limitation talks leading to SALT I in 1972, the junior cohorts insisted on maintaining superiority in strategic bombers and multiple-independent-reentry-vehicle (MIRV) capable ICBMs, and on preserving strategic modernization programs.<sup>120</sup> Few understood that only detente could salvage U.S. security in the face of swelling domestic opposition to defense spending and intervention. This was not lost, however, on the young Korean War generation, just now breaking into the flag officer ranks, who saw an assured second strike capability as adequate, and mutual restraint to a spiraling arms race as necessary.<sup>121</sup>

Complexities of deterrence and detente proved more comprehensible to pragmatists, now more numerous in this generation. In a sociological analysis of Air Force leaders in the mid-1970s, the study perceived a "markedly different...[and] less authoritarian" emerging elite "struggling to redefine its

profession," accommodate change, and "moving toward a more pragmatic outlook" than its predecessors who were "socialized during the trauma and urgency of World War II."<sup>122</sup> The same study surveyed the Korean War generation and found more educated officers with greater pluralistic and pragmatic views than had existed in the 1960s:



Graph 14



Graph 15<sup>123</sup>

Nixon's Secretary of Defense, Melvin Laird, also noted a difference. Laird pressured General Ryan and Secretary of the Air Force Robert Seamans to bring younger people into the four star ranks.<sup>124</sup> Seamans pressured for the bright, young, and popular junior cohort George S. Brown to become Chief in 1973, which broke the tradition of obligatory commands at SAC and as Vice-Chief. Brown's diverse career had exposed him to command challenges in many areas of the Air Force.<sup>125</sup> Within one year this generalist was promoted to Chairman of the Joint Chiefs, as a New York Times editorial commented: "to invigorate the intellectual calibre of the Joint Chiefs, which by common judgment has deteriorated over the last decade."<sup>126</sup>

New Defense Secretary James R. Schlesinger replaced Brown as Chief of Staff with another broadened junior cohort, David C. Jones. The new Chief was characterized by colleagues as ambitious, articulate, collegial yet shrewd, very intelligent, hard-working, and a confident, independent thinker whose diverse record rivalled Brown's.<sup>127</sup> Like his predecessor, Jones was a pragmatist who had witnessed first-hand the complexities of the limited wars in Korea and Vietnam.

Brown and Jones presided over crises in Cyprus, Lebanon, Cambodia, and Korea that required limited, pragmatic responses from 1974-1978. They also were key participants in the ongoing negotiations over SALT I, the Vladivostock Accords, SALT II, and the Panama Canal Treaty.

Nevertheless, even the new Air Force leadership fought hard to preserve the sacred centerpiece of its tradition and doctrine—the strategic bomber. By the 1970s TAC was procuring new fighters and MAC (Military Airlift Command) new transports. But SAC was still having difficulty with the B-1. Technological zeal continued to "goldplate" the B-1 with expensive performance enhancements of only marginal value. The problem was exacerbated by inflation and strong Congressional opposition to an ultra-expensive and sinister-looking strategic bomber in the wake of the unpopular Vietnam War.<sup>128</sup> Furthermore, ICBMs, SLBMs, and now cruise missiles challenged the need for an expensive new bomber, particularly when stealth technology was on the horizon. Knowing this, President Carter weighed the value of modified B-52s with cruise missiles against the penetrating B-1 and found the former more cost-effective. Against the advice of his Air Force Chief, Carter fulfilled his campaign promise and cancelled the B-1 in June 1977.<sup>129</sup>

SAC remained noticeably reluctant to champion seriously their bomber in a conventional role. In response to a 1974 request by Senator John Glenn for conventional capability in the B-1, one general reportedly concluded "there was no damn way we were going to risk losing a \$100 million strategic asset in some conventional shootout. But if the senator wanted us to say we'd do that, we were ready to oblige him."<sup>130</sup> SAC had refocused its pride and energies on the Soviet nuclear threat. But attempts to make the B-1 a capable conventional bomber remained limited and belated.<sup>131</sup>



Budget cuts added to the neglect of conventional capabilities and increased hardships in SAC as well. SAC received a lesser share of a decreasing budget. Flying hours for bomber crews fell to 3-4 times per month and averaged 3-4 hours duration. The Soviet SLBM threat increased dispersal and tightened the readiness of SAC alert forces who now averaged 12-13 days of alert per month. Furthermore, SAC continued to get generally the bottom pilot training graduates, though skill in flying is not directly related to leadership potential.<sup>132</sup>

Job attitudes in SAC reflected more difficulties. Air Force personnel surveys and studies in the mid 1970s and early 1980s indicated that SAC aircrews and missilemen felt they suffered more long hours, boredom with alert, and work repetition, while lacking the prestige, job satisfaction, job motivation, and task autonomy of other commands.<sup>133</sup> Always feeling the pressure and demands of strategic deterrence, the fundamental nature and methodology of SAC had changed little from LeMay's time.

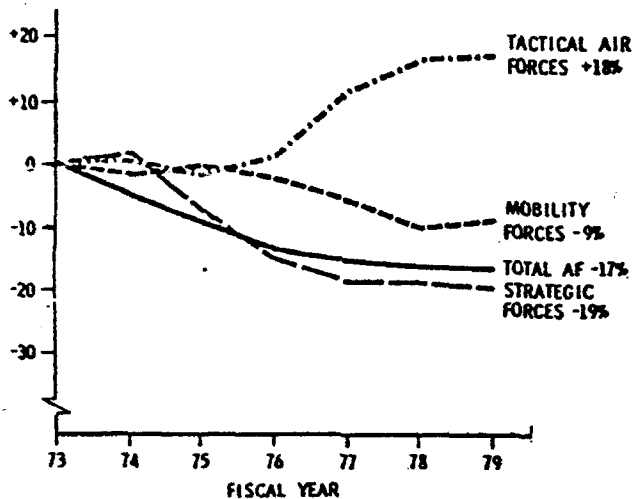
No such status quo pervaded the TAF as if refocused on Europe. To begin with, the ferocity and nature of the October 1973 Yom Kippur War proved even more instructive to the TAF than did Vietnam. In order to contend with proliferating Soviet SAM systems, requirements increased for anti-SAM Wild Weasel aircraft, improved electronic countermeasures, high speed aircraft, computer-aided aiming systems to insure single-pass accuracy, PGMs, and armored close air support aircraft.<sup>134</sup> Fortunately for the TAF, strategic arms agreements and delays in the B-1, coupled with the top priority of NATO in the Nixon, Ford, Carter, and Reagan

Administrations, provided increased funding for TAF programs (see Graph 7).

Reemphasis on a NATO strategy also encouraged more cooperation with the Army. In late 1973 General Brown instructed General Robert J. Dixon, new Commander of TAC, to abide by previous agreements and continue the close working relationship that Brown had established with General Creighton Abrams (now the Army Chief of Staff) while serving together in Vietnam. Brown and Abrams directed Dixon and General William Dupuy, Commander of Army Training and Doctrine Command, to carry the "commonality of purpose...into the entire fabric of relationships between the two Services."<sup>135</sup> Dixon and Dupuy labored on what Dixon termed "an Air Force-Army air-land battle team" primarily designed to fight outnumbered and win on the NATO front. Like the 1973 Arab-Israeli War, a NATO/Warsaw Pact conventional confrontation would focus airpower on the massed armies. An axiom floated around the NATO air forces that one could not prevent a T-72 tank from parking in front of your officer's club by executing the finest of air superiority or strategic bombing campaigns. In the July 1976 doctrinal manual, FM100-5, the Army claimed it "cannot win the land battle without the Air Force."<sup>136</sup> By 1982 the wedding between tactical airpower and the Army was codified in the new "airland battle" doctrine in a drastically revised FM100-5.

The importance of improving Air Force/Army relations in support of a NATO strategy thus called for more fighter experience and resources within the Air Force. From 1971 to 1982 fighter pilots outnumbered bomber pilots by 4 to 1.<sup>137</sup>

### AIR FORCE MANPOWER SHIFTS

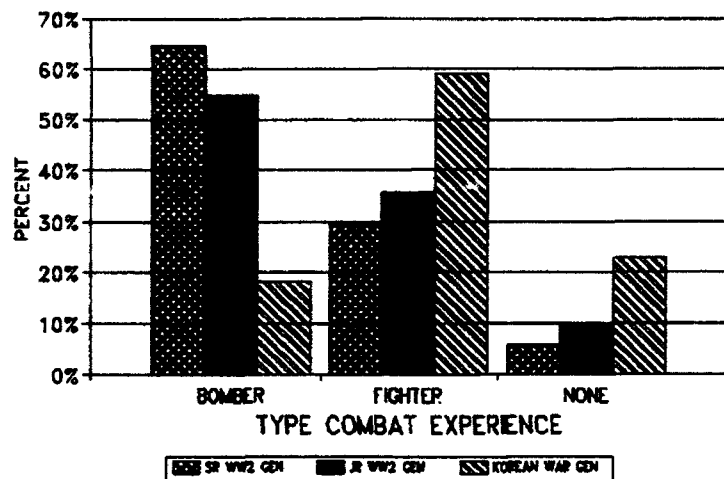


Graph 16<sup>138</sup>

Additionally, a greater number and percentage of fighter pilots were promoted early (below-the-zone) in each year of the 1970s than bomber pilots.<sup>139</sup> Korean War generation four stars with fighter backgrounds reached four star rank on average over one year earlier than their bomber cohorts.

Combat experience continued to be a highly-valued commodity for promotion in the air arm. Fighter generals in the Korean War generation enjoyed more combat experience and a broader career path (15% more had assignments outside of the Air Force) than bomber cohorts (see Graph 17):

# AIR FORCE FOUR STAR GENERALS COMBAT EXPERIENCE



Graph 17

The TAF also seemed to meet Laird's desire to reduce centralization and increase innovation in the military—all problems that had plagued SAC for years.<sup>140</sup> Under the lengthy command of Generals Dixon (5 years) and Wilbur L. Creech (6 years), operations were decentralized and responsibility and aggressive competence pushed down the hierarchy in TAC. The TAF trained intensely and realistically, with mission leaders selected by proficiency, not rank; often captains commanded dozens of aircraft—a concept unheard of in SAC. The Tactical Air Warfare Center exploited a flurry of new innovative technologies, while a resurgent fighter weapons school raised standards in the perfection of technique. A survey conducted by the Air Force Leadership and Management Development Center in 1982 concluded that TAC scored higher than other commands in potential for combat effectiveness.<sup>141</sup>

By the early 1980s the TAF had their hands in virtually every mission. Fighters around the periphery of Eurasia remained on air defense and nuclear alert, for instance, and could perform

virtually every warfighting mission. Air refueling and PGMs allowed fighters to challenge the previously exclusive realm of strategic bombers in range and lethality. Fighters continued to become more flexible, versatile, survivable, lethal, and cost-effective than bombers. Strategic bombers remained only more efficient than fighters in carpet bombing and in deep strikes into the heartland of the Soviet Union—though many questioned their survivability in these roles.

By 1978 the fighter-laden Korean War generation seized the mantle of Air Force senior leadership. The selection of Korean cohort fighter General Charles A. Gabriel in 1982 as Chief of Staff, coupled with the absence of bomber representation at a senior level on the Air Staff, capped the shift in leadership of the Air Force.

However, the "tactical" or "theater" flavor began to color the air service's traditional pursuit of its doctrinal tenets of globalism, indivisibility, and decisiveness. Theater concerns growing from theater experiences overshadowed traditional globalism. The pendulum of comprehending airpower in the broadest sense had swung to the opposite end from where it had been over two decades before. A dominant SAC had tunnel vision on nuclear strategic warfare then; now a dominant TAF risked absorption into the provincial realm of "airland battle."<sup>142</sup> Indivisibility remained difficult with SAC again focused solely on strategic nuclear warfare, and the TAF on war at the battlefield. The ascendant TAF sought decisiveness against a formidable enemy through cooperation with the Army, and through the traditional refinement

of technique and technology. At risk was a balanced and holistic concept of airpower. It remained to be determined if the "TAFercism" was any better than the "SACercism" had been.

## CONCLUSION

Successful top executives supposedly "stand where they sit." They are skilled at comprehending the complex nature of diverse internal dynamics which define their organization. From education and breadth of experience they grasp how external forces influence their organization. Both skills are necessary to understand how to manage change within the organization successfully. The victors of the struggle for influence within the Air Force during the Vietnam era were those generals, regardless of aircraft specialty, better able to grasp new demands on the military profession induced by rapid technological, economic, and political change. This required education, a flexibility of mind, and a breadth of military and Capitol Hill experience.

The traumatic, formative war-fighting experience in World War II of a young and narrowly educated, yet supremely confident generation of future Air Force generals limited their future adaptability to change. This was particularly evident within the bomber community, where the intense fight for service independence and preeminence via strategic bombing nourished an absolutist faith that promised airpower would be decisive in itself, as that community believed it had been in the recent total war. The resultant insularity and narrow doctrinal focus of SAC, coupled with the rigid discipline and control demanded by its mission,

hampered the dominant bomber generals' ability to contend with the realities of limited war in Vietnam.

More pragmatic views that considered airpower a decisive element in joint warfare were more prevalent within the previously subordinated fighter community. Flexible Response and the Vietnam War offered this more broadly experienced community the budget, force structure, and combat experience to challenge for senior leadership positions. The fighter community enjoyed an internal climate that encouraged innovation and delegation, and demanded aggressiveness and flexibility. Additionally, technology increased the range, payload, survivability, accuracy, and flexibility of their systems—even granting access to the sacred strategic bombing role.

By contrast, the bomber arm's influence was further diluted by the rise of SLBMs and ICBMs, as well as SALT talks that limited strategic systems. Slow bomber procurement programs hurt SAC's morale, performance, and size as it declined in the 1970s. By 1982 a post World War II generation of fighter generals were running the Air Force, ultimately because of favorable defense policy, beneficial technologies, cultural advantages, and the decline of absolutism in an era of limited war.

Nevertheless, by 1982 the dominant fighter generals faced similar dangers of bias and narrowness of perspective when they too became consumed with what they perceived as the principle immediate threat—the massed Warsaw Pact armies. The analogue of SAC's SIOP focus may have become the TAF's obsession with "airland battle."

This historical study that ends in 1982 highlights the enduring dangers of parochialism and bias in any organization that is too homogeneous in its senior leadership and culture. This organizational condition is prone to myopia and monistic thinking, often manifested in a consuming focus on a purpose or mission that favors the dominant culture. When these organizations face inevitable environmental or contextual change that challenges the existing paradigm, their uniformity of perspective inhibits not only recognition of the need to change, but also limits alternatives considered and adaptability to that change.

Additionally, this study suggests that broad education and experience, and a diversity of views at the senior executive level are necessary to cultivate visionary leaders who appreciate obvious immediate concerns, but can also manage and anticipate change with a view towards a greater, more holistic, and enduring contribution to the future. In today's time of geostrategic change as reflected by the end of the cold war, institutions that maintain broad and pragmatic perspectives can better recognize and adjust to the new paradigm.

For the Air Force, a true understanding of its institutional past, as well as a realistic assessment of the capabilities and limitations of its doctrinal holy trinity (globalism, invisibility, and decisiveness) is a good start. Ironically, it was the original air absolutist, Giulio Douhet, who said, "Victory smiles upon those who anticipate the changes in the character of war, not on those who wait to adapt themselves after the changes occur." <sup>143</sup>



- 1
- 2 The author defines "fighter" generals as those generals who spent the clear majority of their first 15 years (formative years) in fighter assignments. "Bomber" generals were those generals who spent the clear majority of their first 15 years (formative years) in bomber assignments. If no solid foundation could be discerned, then the generals were labelled "generalists" or, if they spent a majority of time in technical assignments, as "engineers." Appendices 1-4 (obtained from Captain Mike Ford, student, School of Advanced Airpower Studies, Maxwell AFB, AL.) reflect the distribution and rate of change in the backgrounds of senior Air Force leaders.
- 3 For purposes of generational analysis, I will refer to the Vietnam era as 1961-1973 (active USAF involvement); the "post-Vietnam era" as 1973 to 1982. In 1982 the selection of a fighter pilot general as Chief of Staff of the Air Force capped the ascension of fighter generals to dominate senior Air Force leadership positions
- 4 Author spreadsheet: 94% college graduates; 82% Military Academy graduates; 94% pilots; 88% of the bomber pilots commanded squadrons or wings during WW II.
- 5 I borrow the term "absolutist," slightly modified from Morris Janowitz, The Professional Soldier (Glencoe, Ill.: The Free Press, 1960), p. xi. James M. Gavin, War and Peace in the Space Age (New York: Harper, 1958), pp. 250-253 calls him a "conservative;" Sam C. Sarkesian, The Professional Army Officer in a Changing Society (Chicago, Ill.: Nelson-Hall, 1975), p. 242 calls him a "traditionalist;" George Lowe, Age of Deterrence (Boston, Mass.: Little and Brown, 1964), p. 1 calls him a "utopian."
- 6 Author spreadsheet: 41% Military Academy graduates; 35% aviation cadets without college degrees; 29% Air Command and Staff College graduates (replaced Air Corps Tactical School)--all attended after WW II.
- 7 Author spreadsheet: 50% Military Academy graduates; 27% aviation cadets (many received degrees after war); 91% bachelors degrees, 73% masters degrees, 14% doctorates--as opposed to 84% bachelors degrees, 14% masters degrees, and 2% doctorates of the World War II generations; 59% Air Command and Staff College graduates; 86% war college graduates--as opposed too 38% and 59% from WW II generations.
- 8 Roy R. Grinker and John P Spiegel, Men Under Stress. (Philadelphia, The Blakiston Company, 1945), pp. 5-6. A study done by Army psychologists of men in training and in combat overseas, as well as interviews in several thousand convalescent hospitals.
- 9 Samuel A. Stouffer, et. al., Studies in Social Psychology in World War II: Vol II: The American Soldier: Combat and its Aftermath (Princeton, N.J.: Princeton University Press, 1949), pp. 340-2; These extensive surveys, questionnaires, interviews, and sociological and psychological studies were conducted by over 100 research experts who studied soldier attitudes for the four years of the war. The Air Corps received 41% of the top two brackets of the Army General Classification Test.
- 10 Ibid.
- 11 Wesley Frank Craven and James Lea Crate, The Army Air Forces in World War II, Vol VI: Men and Planes (Washington D.C.: Office of Air Force History, 1955), pp. 553, 572; James F. Dorfler, "The Branch Point Study: Specialized Undergraduate Pilot Training," (Airpower Research Institute Report, Maxwell Air Force Base, AL.: Air University Press, 1986), p. 5. The factors for selection of follow on aircraft have remained basically the same through 1971, and from 1978 on. Sometimes preferences for fighters exceeded demand, and not enough men of the required physical qualifications desired bombers. At that point aircraft availability and physique determined assignments; Dewan D. Madden, "Tactical Fighter Pilot Selection Considerations," (Air Command and Staff College Report, Maxwell AFB, AL.: Air University, 1973), p. 37. Madden calculates that 32% of pilot training graduates had gone into fighters through 1973. Outstanding flying skills are not directly related to generalship.
- 12 Michael S. Sherry, The Rise of American Air Power: The Creation of Armageddon (London: Yale University Press, 1987), p. 179.
- 13 Ibid., p. 180. Sherry noted in an interview with Senior bomber cohort, General Curtis LeMay, how LeMay lamented not having a formal education to debate strategy and politics, but in WW2 the "main thing was to have enough energy to get off your ass and do something."
- 14 David MacIsaac, gen edit., The United States Strategic Bombing Survey 10 vol. (Garland Publishing, 1976) Vol I, p. 38; Vol VII, p. 26.
- 15 I also borrowed "pragmatist" from Janowitz, Professional Soldier, pp. xi, 270-7. Gavin, War and Peace, pp. 250-2, referred to as "liberals;" Sarkesian, Professional Army, p. 199 referred to as "transitionalists;" Lowe, Age of Deterrence, pp. 2-4, referred to as "traditionalists."

- 16 Perry McCoy Smith, The Air Force Plans for Peace (Baltimore, Md.: The John Hopkins Press, 1970), p. 25. Smith also argues that autonomy was the primary focus for postwar planning in the Air Force (p. 14).
- 17 In fact, there was cautious optimism by General Kenney and others that "nuclear bombers without fighter escort might be strategically feasible." see Robert Frank Futrell, Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force, 1907-1960 Vol I (Maxwell A.F.B. AL: Air University Press, 1989), p. 231. Furthermore, there were no Air Force war plans from 1945 to 1950 that addressed a conventional surface campaign, see Joseph W. Caddell, "Orphan of Unification: The Development of United States Air Force Tactical Air Power Doctrine, 1945-1950" (Doctoral Dissertation, Duke University, 1984), p. 119.
- 18 Walt W. Rostow, The United States in the World Arena: An Essay in Recent History (New York: Simon and Schuster, 1960), p. 224.
- 19 R. Frank Futrell, The United States Air Force in Korea, 1950-1953 (New York: Duell, 1961), p. 158.
- 20 Mark Clodfelter, The Limits of Air Power: The American Bombing of North Vietnam (New York: The Free Press, 1989), p. 23; Edward C. Keefer, "President Dwight D. Eisenhower and the End of the Korean War," Diplomatic History 10 (Summer 1986): 280; Richard H. Kohn and Joseph P. Harahan, Strategic Air Warfare (Washington D.C: Office of Air Force History, 1988), pp. 87-9; Curtis E. LeMay with MacKinlay Kantor, Mission With LeMay (Garden City, NJ: Doubleday, 1965), pp. 458-64.
- 21 Richard K. Betts, Soldiers, Statesmen, and Cold War Crises (Cambridge, Mass: Harvard University Press, 1977), p. 83. See also Janowitz, Professional Soldier, p. 268. Clodfelter, Limits of Air Power, p. 25; Emmet O'Donnell, a senior bomber cohort stated, "It [American objective in Korea] is contrary to everything that every military commander that I have been associated with or from all of our history. He has never been in a position where he could not win the war he started to win. That is not American...And who did it?--I don't know. I know that General MacArthur's hands were tied, I am sure, not by the Joint Chiefs of Staff, but by the ...State Department."
- 22 Jerome V. Martin, "Reforging the Sword: United States Tactical Air Forces, Air Power Doctrine, and National Security Policy, 1945-1956," (Doctoral Dissertation: Ohio State University, 1988), pp. 92, 95; Caroline Zemke, "In the Shadow of the Giant: USAF Tactical Air Command in the Era of Strategic Bombing, 1945-1955," (Doctoral Dissertation, Ohio State University, 1989), p. 177; fighter General O.P. Weyland and others cried for more limited war capability, more joint training with the Army, and a better command and control system.
- 23 Korb, The Joint Chiefs of Staff: The First 25 years (Bloomington, Ind.: Indiana Univ. Press, 1976), p. 109: The Air Force received on average 46% of the Defense Budget from 1952-1960. SAC received the vast majority of the Air Force budget.
- 24 David Alan Rosenberg, "The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1960," International Security, Spring 1983 pp. 13-15; LeMay, Mission, pp. 439, 441, 496.
- 25 Vance O. Mitchell, The First Generation: A Policy History of the Air Force Officer Corps, 1944-1973, (Unpublished manuscript, Office of Air Force History, May 1991), pp. 181, 281; USAF Oral History interview with General Curtis E. Lemay by John T. Pohn, March 9, 1971, on file at AFHRA, Maxwell AFB, AL., file number K239.0512-736, pp. 30, 40.
- 26 Korb, The Joint Chiefs of Staff, p. 107. Maxwell D. Taylor, The Uncertain Trumpet (New York: Harper and Brothers, 1959), p. 110: Alleges that Twining as Chairman of the JCS voted with the Air Force on all split decisions.
- 27 USAF Oral History Interview with General William V. McBride by Dr. James C. Hasdorff, January 29-31, 1980, on file at AFHRA, Maxwell AFB, AL., file number K239.0512-1188, pp. 210-212.
- 28 Martin, "Reforging," pp. 281. 294-5.
- 29 USAF Oral History interview with Eugene M. Zuckert by Dr. Edgar F. Puryear, Jr., September 28, 1977, on file at AFHRA, Maxwell AFB, AL., file number K239.0512-1525, pp. 23, 25, 30; USAF Oral History interview with Eugene M. Zuckert by Dr. George M. Watson, April 27, 1982, on file at AFHRA, Maxwell AFB, AL., file number K239.0512-1348, p. 26; USAF Oral History interview with Eugene M. Zuckert by Dr. George Watson, December 3-5, 9, 1986, on file at AFHRA, Maxwell AFB, AL., file number K239.0512-1763, pp. 79-80.
- 30 Thomas S. Power, "How Much Can Missiles Really Do?", Air Force, (September 1956): pp. 105-106; George Reed, "U.S. Defense Policy, U.S. Air Force Doctrine and Strategic Nuclear Weapon Systems, 1958-1964: The Case of the Minuteman ICBM," (Doctoral Dissertation, Duke University, 1986), pp. 48-9, 54-64: In June 1957 White asked a board of senior officers chaired by Lieutenant General Donald Putt to review ICBM development. They cited lack of Air Force interest and understanding by most top level officers. They also noted lack of Air Force vision and support of education. Fred

- Kaplan, The Wizards of Armageddon (New York: Simon and Schuster, 1983), p. 132; Herbert F. York, Race to Oblivion (New York: Simon and Schuster, 1979), pp. 52-3.
- 31 Commander of TAC, senior cohort fighter General Frank Everest was replaced by senior bomber General Walter Sweeney in October 1961; Vice Commander of TAC, fighter Lieutenant General Gabriel Disosway was replaced by bomber Lieutenant General Charles Westover in 1962 after "not seeing eye to eye on anything" with his new commander. Fighter General Frederick Smith was immediately replaced by bomber General Truman Landon as Commander of United States Air Forces Europe; Smith went to become the Vice Chief of Staff only to be fired a year later by LeMay. Disosway also went to the air staff as its lone fighter general and remembered being "smothered" by SAC generals who soon got accustomed to his usual dissenting vote. See: USAF Oral History interview with General David C. Jones by Dr. Edgar F. Puryear, Jr., October 2, 1980, on file at AFHRA, Maxwell AFB, Al., file number K239.0512-1442, p. 3; Thomas M. Coffey, Iron Eagle: The Turbulent Life of General Curtis LeMay (New York: Crown Publishers, Inc., 1986), pp. 360, 385-6.; USAF Oral History interview with General Frederic H. Smith, Jr. by J. Ferguson, June 19, 1968, on file at AFHRA, Maxwell AFB, Al., file number K239.0512-903. p. 150, Smith claims he was fired by Secretary of Defense McNamara over Smith's retention of a "stupid major general" in Air Force Logistics Command that McNamara wanted fired.
- 32 USAF Oral History interview with Lieutenant General Albert P. Clark by Scottie S. Thompson, June 1979, on file at AFHRA, Maxwell AFB, Al. file number K239.0512-1130, p. 207; USAF Oral History interview with General Truman H. Landon by Hugh N. Ahmann, May 31, June 3, 1977, on file at AFHRA, Maxwell AFB, Al. file number K239.0512-949, p. 452, agrees with Clark.
- 33 AU/RSI Study: "The Relationship Between Past and Present Strategic and Tactical Concepts," June 1961, on file at AFHRA, Maxwell AFB, Al., file number K239.0462-25.
- 34 AFXPD-LR Staff Study: "The Development and Dissemination of Long-Range USAF Plans, Concepts and Policies and Associated Organizational Changes," by Colonel R. C. Richardson III, 23 October 1959, on file at AFHRA, Maxwell AFB, Al., file number 168.7010-20, pp. 1-6, 16, 27, 36; Reed, "Minuteman," pp. 114-117: The study bluntly concluded that "Today there is little evidence of any substantive conceptual change, nor is the air staff now organized so as to best generate and process proposals for change." Furthermore, Air Force planning "has been largely limited to considering the impact of adding forecast weapon systems to projections of current concepts," and that the present structure is not capable of giving advice on new strategy and concepts "not influenced by Air Force interests or past Air Force positions and policies." The report claimed the Air Force had "defensive, status quo, reactionary positions on most issues" and found it hard to "list any policy or strategic goals...that the Air Force is publicly fighting for, other than 'more of the same'...." The study warned that Air Force doctrine was losing touch with military realities by attempting to fight World War III with the weapons, strategies, and tactics of World War II. It conceded that Air Force visionaries were increasingly near-sighted, while far-sighted civilian strategists were beginning to fill the void.
- 35 Edgar F. Puryear, Jr., George S. Brown General USAF: Destined for Stars, (Novalto, Calif.: Presidio Press, 1983), p. 118.
- 36 Futrell, Ideas, Vol II, p. 231; Interview of Eugene Zuckert by Lawrence E. McQuade, May 2, 1964, on file at AFHRA, Maxwell AFB, Al., file number 168.7050-1, pp. 10, 11, 18: Zuckert also observed that "there was too much [parochial] thinking along service lines" at the time.
- 37 USAF Oral History interview with General Jacob E. Smart by Dr. Edgar F. Puryear, Jr., July 17, 1979, on file at AFHRA, Maxwell AFB, Al., file number K239.0512-1498, p. 20.
- 38 Zuckert Oral History, file number K239.0512-1763, pp. 10-11.
- 39 Richard L. Davis and Frank P. Donnini, Professional Military Education for Air Force Officers: Comments and Criticisms (Maxwell AFB, Al.: Air University Press, 1991), p. 58: Even LeMay himself complained that his air staff could not competently perform their staff work.
- 40 Arthur M. Schlesinger, A Thousand Days: John F. Kennedy in the White House (Boston, Houghton Mifflin, 1965), p.319; Alfred E. Hurley and Robert C. Ehrhart, edit. "The Perceptions of Three Makers of Air Power History," Airpower and Warfare: Proceedings of the Military History Symposium, United States Air Force Academy (Washington D.C.: Office of Air Force History, 1979), p. 188; Curtis E. LeMay, America is in Danger (New York: Funk & Wagnalls, 1968), p. x; USAF Oral History interview with General Howell M. Estes, Jr. by Lt Col Lyn R. Officer and Lt Col Robert G. Zimmerman, August 27-30, 1973, on file at AFHRA, Maxwell AFB, Al., file number K239.0512-686, p. 220.
- 41 Figures furnished by Henry M. Narducci, Historian, SAC Office of History, Offut AFB, NE., December 6, 1991 to author.
- 42 Betts, Soldiers, pp. 156-7; Coffey, Iron Eagle, p. 391.

- 43 Futrell, Ideas Vol I, p. 84; Robert F. Futrell, "The Influence of the Air Power Concept on Air Force Planning, 1945-1962," Military Planning in the Twentieth Century: Proceedings of the Eleventh Military History Symposium USAF Academy, 1984 (Washington D.C.: Office of Air Force History, 1986), pp. 267-268; Kohn and Harahan, Strategic Air Warfare, p. 114; Thomas S. Power, Design for Survival (New York: Coward-McCann, 1965), pp. 22, 135.
- 44 Ibid., p. 83; Betts, Soldiers, p. 108.
- 45 Futrell, Ideas Vol II, pp. 93, 104-5; Power, Design for Survival, pp. 77, 79, 114-5; Betts, Soldiers, pp. 112-113. LeMay did finally relent to the Nuclear Test Ban Treaty for "political reasons."
- 46 DOD Appropriations, FY 1963, pp. 177-188.
- 47 Mark Perry, Four Stars (Boston: Houghton Mifflin Company, 1988), p. 142; Alfred Steinberg, Sam Johnson's Boy: A Close-up of the President From Texas (New York: MacMillan, 1968), p. 761.
- 48 At the request of the JCS in 1964, the DIA (in cooperation with SAC) had developed a list of 94 "strategic" targets in North Vietnam "considered to have a most direct relationship to the North Vietnamese war-making capacity and will to fight;" see William W. Momyer, Airpower in Three Wars (Washington D.C.: U.S. Government Printing Office, 1978), p. 15; USAF Oral History interview with General Horace M. Wade by Hugh N. Ahmann, October 10-12, 1978, on file at AFHRA, Maxwell AFB, AL., file number K239.0512-1105.
- 49 David Anderton, Strategic Air Command: Two Thirds of the Triad (New York: Charles Scribner's Sons, 1975), p. 16; Morris E. Shiver, "Retention of Junior Officers in the Strategic Air Command," (Maxwell AFB, AL.: Air University, January 1966), p. 38.
- 50 USAF Oral History interview with General Horace M. Wade, file number K239.0512-1105, p. 267.
- 51 USAF Oral History interview with General Curtis E. LeMay, file number K239.0512-1450, pp. 40-41.
- 52 Arnold Kanter, "The Career Patterns of Air Force Generals," American Journal of Political Science vol 21, no 2, (May 1977), p. 362. Author examined the career paths of all 1156 Air Force line officers who served at flag officer rank from 1953-1972 and noted similar insulation and educational trends.
- 53 Shiver, "Retention," p. 5.
- 54 Ibid., pp. 33-34, Most listed TAC or ADC (Air Defense Command) as their top choice.
- 55 McQuade interview of Zuckert, 1964, file number 168.7050-1, pp. 11-12, 18; USAF Oral History interview with Eugene M. Zuckert, file number K239.0512-1525, p. 34: Zuckert longed for a General White that was five years younger to handle the McNamara "tradition."
- 56 DOD Appropriations 1965, Part 4, pp. 512-513.
- 57 Robert N. Ginsburgh, U.S. Military Strategy in the Sixties (New York: Norton and Company INC., 1965), pp. 10-11: "Their attitudes may range from belligerency to skepticism based in ignorance of the process, and antagonism toward the civilian analyst who has presumed to study military problems." The same observer was representative of younger officers who noted the failures induced by such obstinacy: "The traditional ploy of the military man who limited his argument to an affirmation of his professional judgment has been generally discredited."
- 58 The senior World War II generation of Air Force four-stars retired en masse in the mid 1960s. Commander of SAC from 1957-1964, Thomas Power, the extremist of absolutism, retired on December 1, 1964 and immediately published Design for Survival (1965). Curtis LeMay retired with little fanfare on February 1, 1965 and subsequently published America is in Danger (1968). They joined absolutist Nathan Twining's Neither Liberty Nor Safety: A Hard Look at U.S. Military Policy and Strategy (New York: Holt, Rinehart, and Wintson, 1966) in a trio of foreboding books warning America of the dangers of abandoning absolutist teachings.
- 59 Edgar Puryear, Stars in Flight: A Study in Air Force Character and Leadership (San Rafael, Calif: Presidio Press, 1981), p. 120.
- 60 Arnold Kanter, "Managerial Careers of Air Force Generals: A Test of the Janowitz Convergence Hypothesis," Journal of Political and Military Sociology, Spring, 1976 (Vol 4), p. 125: An analyst who surveyed all Air Force general officers from 1953 to 1972 observed that the annual proportions of generals holding advanced degrees increased steadily throughout the period, but there was a "large and growing gap between the more highly educated administrators and technologists, and those generals whose careers were in operations and staff work," i.e. those running the Air Force. "Part time" in graph indicates graduation from a correspondence or night master's program.
- 61 Arnold Kanter, "Career Patterns," p. 362.
- 62 USAF Oral History interview with General John P. McConnell by Dr. Edgar F. Puryear, Jr., 1975, on file at AFHRA, Maxwell AFB, AL., file number K239-1457, p. 28; also by Dorothy Pierce McSweeney,

- Lyndon Johnson Library, August 28, 1969, on file at AFHRA, Maxwell AFB, Al., file number K239-1190.
- 63 Betts, *Soldiers*, p. 179.
- 64 David Halberstam, *The Best and The Brightest* (New York: Random House, 1969), pp. 646-7.
- 65 George C. Herring, "'Cold Blood': LBJ's Conduct of Limited War in Vietnam," *The Harmon Memorial Lectures in Military History*, (USAF Academy, Co, 1990), p. 2.
- 66 The only fighter general in a key operational four-star position was General Gabriel Disosway, who had "escaped" the SAC-dominated air staff to command the United States Air Forces Europe (USAFE). In August 1965 McConnell took action to provide more tactical (fighter) experience in key senior positions. The retirement of bomber General Walter Sweeney that month opened command of TAC to Disosway. The widely-respected fighter general Bruce K. Holloway replaced Disosway at USAFE. Two months earlier, McConnell had promoted fighter Major General Joseph H. Moore, the in-country Air Force commander in South Vietnam (2nd Air Division), to lieutenant general. General Moore had replaced bomber Major General Rollen H. Anthis as Commander of 2nd Air Division.
- 67 HQPACAF, *Effects of U.S. Air Operations*, p. 1-7.
- 68 McConnell had also realized the necessity to broaden and nurture a few generals he considered capable of succeeding him. In February 1967, he relieved bomber General Hunter Harris, Jr. as PACAF Commander, and replaced him with former SAC Commander, bomber General John D. Ryan. In August 1966 McConnell had brought fighter General Bruce K. Holloway from USAFE to be his Vice-Chief of Staff. Holloway gave the fighter community intimate access to McConnell. In July 1968 the Air Force Chief demonstrated his resolve to "unify the Air Force" when he moved fighter General Holloway to take Command of SAC. Holloway vacated the Vice-Chief position to make room for bomber General Ryan who returned from his broadening experience in PACAF to build experience in Washington before succeeding McConnell. Bomber General Joseph J. Nazzaro followed Ryan from SAC to PACAF. The bomber generals still held most of the top Air Force positions, and a chosen few were gaining experience in limited war. Meanwhile, more fighter generals were gaining critical combat command experience and slowly breaking into the top echelon.
- 69 USAF Oral History interview with General Theodore R. Milton, file number K239.0512-1466, p. 11, file number K239.0512-1467, p. 9; USAF Oral History interview with Major General Otis Moore, file number K239.0512-1469, p. 15; USAF Oral History interview with General William W. Momyer, by Dr. Edgar F. Puryear, Jr. September 7, 1981, on file at AFHRA, Maxwell AFB, Al., file number K239.0512-1468, pp. 7-8; USAF Oral History interview with General Bruce K. Holloway, file number K239.0512-1438, p. 22; USAF Oral History interview with General Russell E. Dougherty by Dr. Edgar F. Puryear, Jr., March 27, 1979, on file at AFHRA, Maxwell AFB, Al., file number K239.0512-1408, pp. 6-19; USAF Oral History interview with General George S. Brown, file number K239.0512-1383, p. 13; Bruce Palmer, Jr. *The 25-Year War: America's Military Role in Vietnam* (Lexington Ky.: University Press of Kentucky, 1984), p. 92.
- 70 Two of these "generalists" were former bomber pilots George S. Brown and David C. Jones, who had each commanded fighter wings before being assigned to 7AF. They would both become Chiefs of Staff of the Air Force and consecutively Chairmen of the Joint Chiefs of Staff.
- 71 USAF Oral History interview with General Horace M. Wade, file number K239.0512-1105, p. 409.
- 72 USAF Oral History interview with General Joseph Nazzaro, Jr. by Scottie S. Thompson, Feb. 3-6, 1980, on file at AFHRA, Maxwell AFB, Al., file number K239.0512-1189, p. 121; USAF Oral History interview with General Horace M. Wade, file number K239.0512-1105, p. 429.
- 73 Fighter pilots did receive campaign ribbons, remote tour credit, and favorable (combat) Officer Effectiveness Reports.
- 74 John Schlight, *The War in South Vietnam: The Years of the Offensive, 1965-1968* (Washington D.C.: Office of Air Force History, 1988), p. 163; Author interview with General John Shaud, 23 April 1992: Recalled that many of SAC's finest young officers left SAC at this time never to return.
- 75 Broughton, *Going Downtown*, (New York: Bantam Books, 1986), p. x. Wolfe wrote Broughton's preface.
- 76 Jack Broughton, *Thud Ridge* (New York: Bantam Books, 1969), p. 143.
- 77 *Ibid.*, p. 141; Broughton, *Thud Ridge*, pp. 18, 95, 96, 143; Robert F. Dorr, *Air War Hanoi* (London: Blandford Press, 1988), p. 72.
- 78 *Ibid.*, pp. 96, 104-5, 194, 233-8, 265, 280; Broughton, *Thud Ridge*, pp. xv, 18, 95; Frederick C. Blesse, *Check Six: A Fighter Pilot Looks Back* (New York: Ivy Books, 1987), pp. 192-3; Dorr, *Air War Hanoi*, p. 53; USAF Oral History with Lieutenant General Alvan C. Gillem by Arthur W. McCants, Jr and Scottie S. Thompson, on file at AFHRA, Maxwell AFB, Al., file number K239.0512-1115, p. 155.

79 The TAF also had its teething problems. Air-to-air combat skills had atrophied. Early bombing raids in Rolling Thunder were noticeably inaccurate, and it took a while for pilots to reduce their average accuracy from 750ft to 365ft: Futrell, Ideas Vol II, p. 288. Additionally, fighter pilots began the war using quite a few out-dated tactics, such as level high altitude bombing, etc.

80 Momyer, Air Power, p. 283.

81 Broughton, Thud Ridge, p. 27; Author interview with General John W. Vogt, April, 1992.

82 HQ USAF U.S. Air Force Statistical Digest FY1963-1981 (Washington D.C.: Directorate of Data Systems and Statistics, Comptroller of the Air Force, HQ USAF), on file at Air Force Office of History, Bolling AFB, Washington D.C.

83 Futrell, Ideas Vol II, pp. 46, 121.

84 HQ USAF U.S. Air Force Statistical Digest FY1948-1990; figures also available from DOD Budget Office; TAF wings include airlift and overseas wings in this graph.

85 Office of the Secretary of the Air Force/FMBMP Pentagon, Washington D.C.; SAC Histories (1948-1987); 1957 was high point for fighters (many interceptors in Air Defense Command, escort fighters in SAC, and less so fighters in TAC) and bombers in SAC.

86 HQ USAF U.S. Air Force Statistical Digest FY1948-1987 ;

87 HQ USAF U.S. Air Force Statistical Digest FY1957-1978; By 1969 the ratio of TAF generals to SAC generals had increased from 1.3:1 in 1963 to 2:1

88 Thomas C. Thayer, War Without Fronts: The American Experience in Vietnam (Boulder: Westover Press, 1985), pp. 80,82,84.

89 Vietnam's jet fighters could exceed most World War II bombers in all these features.

90 Futrell, Ideas Vol II, pp. 470-480.

91 Ibid., p. 478; USAF Oral History interview with General John P. McConnell, file number K239.0512-1190, p. 31.

92 Marcelle Knaack, Encyclopedia of USAF Aircraft and Missile Systems Vol I: Post-World War II Fighters (Washington D.C.: Office of Air Force History, 1978); Secretary of the Air Force/FMBMP, Pentagon. "Flyaway costs" is nomenclature for development and production costs.

93 Marcelle Knaack, Encyclopedia of USAF Aircraft and Missile Systems Vol II: Post-World War II Bombers (Washington D.C.: Office of Air Force History, 1988); Secretary of the Air Force/FMBMP, Pentagon. Note different scale on "y" axis than in Graph 12.

94 USAF Oral History with General Bruce K. Holloway by Lieutenant Colonel Vaughn H. Gallacher, August 16-18, 1977, on file at AFHRA, Maxwell AFB, AL., file number K239.0512-955, p. 352.

95 Futrell, Ideas Vol II, p. 391.

96 Ibid., p. 394: The Air Force reluctantly pursued a non-nuclear capability in late 1966 after insistence of Secretary of the Air Force Harold Brown; Nick Kotz, Wild Blue Yonder: Money, Politics, and the B-1 Bomber (New York: Pantheon Books, 1988), pp. 73, 79-80.

97 Ibid., p. 124.

98 Kotz, Wild Blue Yonder, p. 84.

99 USAF Oral History interview with General John P. McConnell, file number K239.0512-1190, p. 32.

100 Futrell, Ideas Vol II, pp. 393-6; Kotz, Wild Blue Yonder, p. 85.

101 Ibid., p.397; Kotz, Wild Blue Yonder, pp. 112-117: a 1973 GAO Report showed cost overruns, performance reductions, and encouraged mounting Congressional criticism. The Air Force clung to the speed requirement and the "disastrous escape capsule." Fighter cohort General Larry D. Welch recalled the fight to "beat down the B-1 design requirements into something more buildable, affordable, and practical" was very difficult.

102 This former combat fighter squadron commander and ace from World War II had an unusually broad career. He graduated from Yale and later received a masters degree in international affairs at Columbia. He topped his academic education off as a fellow at the Harvard School of International Affairs. Additionally, he had extensive experience on the joint staff, on the staff of the Secretary of Defense, on the Air Staff, and on the PACAF staff.

103 HQ PACAF, Directorate of Operations Analysis, Linebacker: Overview of the First 120 Days, September 27, 1973, pp. 25, 32. For example, the Thanh Hoa bridge, first attacked on April 3, 1965 was never disabled despite repeated assault by Air force and Navy fighters. The Air Force sent 79 F-105s that dropped 638 750lb bombs, fired 32 Bullpup air-to-ground missiles and 266 2.75 inch rockets to no avail. The target became known as the "Dragon's Jaw" as its defenders shot down four of the attackers. Finally, on May 13, 1972, Vogt sent three flights of F-4s with laser-guided-bombs (LGBs) and dropped the bridge with no losses. The Paul Doumer Bridge had earned a similar reputation, but was dropped by fighters employing LGBs on May 10. Vogt commented, "as fast as they could repair bridges, we could drop them....[the enemy] was beginning to dry up." See also

A.J.C. Lavalley, Edit. The Tale of Two Bridges and The Battle For the Skies Over North Vietnam (Washington D.C.: U.S. Government Printing Office, 1976).

104 Richard M. Nixon, The Memoirs of Richard Nixon, Vol 2 (New York: Warner Books, 1978), p. 60.

105 Ibid., p. 242; Clodfelter, Limits of Air Power, p. 184.

106 Leonard D.G. Teixeira, "Linebacker II: A Strategic and Tactical Case Study," (Maxwell AFB, AL, April 1990), p. 7. Clodfelter, Limits of Air Power, p. 184.

107 Teixeira, "Linebacker Case Study," p. 8; Clodfelter, Limits of Air Power, p. 185: One member of the 8AF staff recalled: "As far as we were concerned it was a new plan."

108 Author interview with Lieutenant General Gerald W. Johnson, February 5, 1993.

109 Clodfelter, Limits of Air Power, p. 192.

110 In fairness, the SACADVON had kept SAC abreast of Linebacker 1 operations. Additionally, SAC has access to SR-71 information and other intelligence sources; SAC did not enter the fray cold. More important, fighter cohorts Vogt and Johnson had developed a good working relationship during Linebacker 1.

111 Author interview with Lieutenant General Gerald W. Johnson; Clodfelter, Limits of Air Power, p. 186; McCarthy and Allison, Linebacker II: View From the Rock (Maxwell AFB, AL: Airpower Research Institute, 1979), pp. 50, 79; Karl J. Eschmann, Linebacker: The Untold Story of the Air Raids Over North Vietnam (New York: Ivy Books, 1989), p. 156.

112 McCarthy and Allison, View From the Rock, pp. 67-70; Eschmann, The Untold Story, p. 112.

113 Nixon, Memoirs, Vol 2, p. 246; Clodfelter, Limits of Air Power, p. 187.

114 Momyer, Air Power, p. 107; Futrell, Ideas Vol 2, p. 286.

115 Henry Kissinger, White House Years, (Boston, Mass., 1979) pp. 1467, 1461; Nixon, Memoirs, Vol 2, p. 259; Teixeira, "Linebacker Case Study," p. 28; Momyer, Air Power, p. 243.

116 Earl H. Tilford, Jr. Setup: What the Air Force Did in Vietnam and Why (Maxwell AFB, AL: Air University Press, 1991), p. 261; Author interview with General John Vogt, April 23, 1992: LORAN F-4s flew in close formation at 20,000 feet over Hanoi and destroyed the SAM assembly plant amidst numerous SAM firings. The assembly plant was located too close to civilian areas for the B-52s to hit. F-4s using LGBs also took out the Hanoi AM transmitter, the Hanoi thermal power plant, and a few other previously untouchable targets: see also Eschmann, The Untold Story, pp. 163, 181.

117 Clodfelter, Limits of Air Power, p. 201.

118 Ibid.

119 Air Force Manpower Statistical Analysis, SAF/FMBMP, July 1992; Kotz, Wild Blue Yonder, p. 11. A statistical analysis revealed 5 in 18 pilot training graduates in the decade after Vietnam received fighter or reconnaissance, and 95% of those pilots stayed in their weapons system. General Russell E. Dougherty pointed out in an interview with the author on June 22, 1992 that the computerization of the assignment process in the early 1970s identified people with specialty codes and as "SAC or TAC [fighter or bomber] resources." "One could seldom cross between the two."

120 Kotz, Wild Blue Yonder, p. 105: claims Secretary of Defense Laird says the JCS wouldn't support SALT unless strategic modernization with the B-1 and Trident submarine was protected.

121 Donald F. Bletz, The Role of the Military Profession in Foreign Policy (New York: Praeger Publishers, 1972), p. 212: observed in a survey of the National War College Classes of 1968-1970 that the vast majority of students rejected the spate of absolutist books published by retiring senior World War II cohorts (see Chapter 3), pp. 12, 273-4,7: Furthermore, the new generation rejected the notion of unconditional surrender [and total victory] as invalid in the contemporary international environment; Betts, Soldiers, p. 114: During SALT negotiations "younger military men tended to be less obdurate and less distinct in their attitudes from civilian strategists." 70% of Air Force officers now favored arms control.

122 Franklin D. Margiotta, "A Military Elite in Transition," Armed Forces and Society, Vol. 2 No. 2 (February 1976), pp. 155,6,9,163,281: The analysis studied 351 (90%) of all line Air Force general officers as of January 1, 1974. Additionally, they sampled all line officers (1,971) serving as early promotees to the grades of major, lieutenant colonel, and colonel as well as students in service schools.

123 "Part time" means they received their master's degree from a correspondence or night program.

124 USAF Oral History with Secretary of the Air Force, Robert C. Seamans, Jr. by Lt Col Lynn R. Officer and Hugh N. Ahmann, November 27, 1973 and March 24, 1974, on file at AFHRA, Maxwell AFB, AL., file number K239.0512-687, pp. 40, 49, 51: Laird also pressured the other services for youth and promoted young four stars like Elmo Zumwalt, Al Haig, and George Brown.

125 Brown flew in World War II as a bomber squadron commander, and led the surviving bombers back from the infamous raid on the Ploesti oil refineries. He then served in Air Training Command, Air

- by a stint as commander of a transport numbered air force and of the joint weapons testing center. After serving as assistant to the Chairman of the JCS he went to Vietnam to command the 7th Air Force, followed by command of Air Force Systems Command. USAF Oral History with General Horace M. Wade by Dr. Edgar F. Puryear, Jr., November 17, 1970, on file at AFHRA, Maxwell AFB, AL, file number K239.0512-1518; USAF Oral History interview with General Robert C. Mathis by Dr. Edgar F. Puryear, April 8, 1980, on file at AFHRA, Maxwell AFB, AL, file number K239.0512-1464, p. 5: Brown was "the most uniquely, broadly prepared man ever to become Chief or even to become Chairman because his experience was quite unusual too. So it was clearly by design."
- 125 Cited in Puryear, George S. Brown, p. 236; Betts, Soldiers, p. 62; Mark Perry, Four Stars, p. 251: comments on how Schlesinger was impressed with Brown's intellect and wanted to get away from Vietnam and onto strategic issues.
- 126 USAF Oral History interview with Major General Otis C. Moore, file number K239.0512-1469, p. 17; USAF Oral History interview with General Russell E. Dougherty by Dr. Edgar F. Puryear, Jr., March 15, 1979, on file at AFHRA, Maxwell AFB, AL, file number K239.0512-1407, p. 14; USAF Oral History interview with General John W. Vogt by Dr. Edgar F. Puryear, Jr., September 9, 1981, on file at AFHRA, Maxwell AFB, AL, file number K239.0512-1517, p. 44; USAF Oral History interview with General Gabriel P. Disosway by Dr. Edgar F. Puryear, Jr., January 17, 1979, on file at AFHRA, Maxwell AFB, AL, file number K239.0512-1401, p. 6; USAF Oral History interview with General Bruce K. Holloway, file number K239.0512-1438, p. 6; USAF Oral History interview with General Jacob E. Smart, file number K239.0512-1498, p. 21; USAF Oral History interview with General Jack J. Catton, file number K239.0512-1391, p. 14; USAF Oral History interview with General Lucius D. Clay, Jr., file number K239.0512-1393, p. 32; USAF Oral History interview with General Jerome O'Malley, file number K239.0512-1478, p. 7; USAF Oral History interview with General T. R. Milton, file number K239.0512-1467, p. 8; Mark Perry, Four Stars, pp. 260-1; Jones had been a flying training instructor, an air rescue pilot, and then had flown in combat as a bomber squadron commander in the Korean War. He then commanded an air refueling squadron and served as General LeMay's aide. Next, he became an aircraft maintenance commander before attending the National War College and subsequently working on the Air Staff. In the mid 1960s he commanded a tactical fighter wing and then served on the USAFE staff. Next he went to Vietnam as the Vice-Commander of 7th Air Force before returning to become a SAC numbered Air Force commander. General Jones then returned to Europe where he became Commander-in-Chief of USAFE. At USAFE Jones had successfully unified the NATO air forces, centralized targeting, and debunked Soviet invincibility; see USAF Oral History with General William W. Momyer, file number K239.0512-1468, p. 6, and author-interviews with General John Vogt, April 23, 1992 and General David C. Jones, June 23, 1992.
- 127 Author interview with General Russell E. Dougherty, June 22, 1992: Dougherty, Commander of SAC from 1974-1977, recalled resentment building in SAC when the other major commands received new aircraft, while SAC hadn't had a new one in 25 years. Dougherty also lamented the fact that Congress and the people thought the B-1 looked hostile, complex, and they disliked the idea that it represented indiscriminate strategic bombing.
- 128 Kotz, Wild Blue Yonder, p. 170-2; Futrell, Ideas Vol II, p. 354; Author interview with General Russell E. Dougherty, June 22, 1992. Carter hoped the freed money could be used for other strategic programs like the MX and cruise missiles, which could be developed into more meaningful bargaining chips in Salt II.
- 129 Ibid., pp. 131-2.
- 130 USAF Oral History interview with General Russell E. Dougherty by John T. Bohn, December 13, 1977, on file at AFHRA, Maxwell AFB, AL, file number K239.0512-1801, p. 3; Author interview with General Russell E. Dougherty, June 22, 1992 complained SAC had no conventional capability when he visited B-1 units in 1988; Author interview with General T. R. Milton, June 15, 1992 lamented the B-1 still had no credible conventional capability; D. D. Karle and J. B. Hall, "Integrating Strategic and Tactical Airpower in Conventional Warfare: B-52 Employment," (Maxwell AFB, AL: Air University, May 1988)
- 131 Major General Sam Westbrook, "UPT Assignment System." (Air Training Command Briefing, 1991): Concerned over "the equitable distribution of talent" and its implications for certain commands, the Air Force decided in 1972 to revise its long-standing policy of using class standing for the selection of aircraft by insuring all commands received graduates from all parts of the class. In 1974 the top 10% of graduates got their choice. This was rescinded in 1976, but those entering TAC had to meet "fighter and reconnaissance" minimum standards. The top 10% got their choice again in 1978. Many top performers in pilot training who did not receive their choice were disillusioned and left the Air Force after serving their commitment.



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- 133 Stephen D. Bull, "Job Attitudes--How SAC Personnel Compare With the Rest of the Air Force," (Air University: Maxwell AFB, AL, April 1986), pp. 11, 13, 29-30, 47-49: By the early 1980s SAC attitude scores were "significantly different from those of other Air Force personnel in 54 of 63 comparisons." See also J.K. Kennedy, "Job Attitudes of SAC Pilots Compared," (Maxwell AFB, AL: Air University, April 1986).
- 134 Futrell, Ideas Vol II, p. 486.
- 135 Ibid., pp. 530-1, 539-40; Richard G. Davis, The 31 Initiatives (Washington D.C.: Office of Air Force History, 1987), p. 26.
- 136 U.S. Army FM100-5 Operations, July 1, 1976, p. 8-1.
- 137 Statistics provided by Defense Manpower Data Center, 99 Pacific Street Suite 155a, Monterey, CA, March 4, 1992.
- 138 DOD Authorizations for Appropriations FY 1979, 95th Congress, 2nd Session, Part 3: Manpower and Personnel, S.257, p. 2255.
- 139 see footnote 132 above.
- 140 J. K. Turnipsseed, "Analysis of Crystal Shield 86: The First SAC Innovation Task Force," (Maxwell AFB, AL: Air University, April 1987) and Lt Col Clarence O. Herrington, Jr., "Innovation in the Strategic Air Command," (Maxwell AFB, AL: Air University Press, December 1987), p. 44; claim that an obstinate SAC staff stonewalled efforts of the task force to recommend innovations in SAC in 1986.
- 141 M.K. Holmes, "Potential for Combat Effectiveness of Tactical Air Command Personnel," (Maxwell AFB, AL: Air University, April 1986).
- 142 TAC Commander, fighter General Robert D. Russ in the July-August 1988 Defense magazine stated "Everything that tactical air does directly supports Army operations." Fighter General John T. Chain, Commander of SAC, in an August 1988 Air Force magazine article offered 66 B-52s for conventional use within a theater; see also General John T. Chain, "Strategic Bombers in Conventional Warfare," Strategic Review (Spring 1988), pp.23-32; Lt Col Philip S. Meilinger, "The Problem With Our Air Power Doctrine," Airpower Journal (Spring 1992), p. 27: cites a TAC Commander in 1991 who asserted "the missions of the tactical air forces are the strategic air defense of the United States and support of the Army. It's as simple as that." If SAC assumed any war with the Soviet Union would be nuclear, and the TAF focused on the air war against massed armies, who integrated a holistic view of airpower that included conventional strategic bombing, the integration of airlift, facilitation of surveillance, etc.? Air Force doctrinal manuals in the 1980s did not appear to have an answer.
- 143 Giulio Douhet, Command of the Air (Washington D.C.: Office of Air Force History, 1983), p. 30: original print 1921.

APPENDIX 1

BACKGROUNDS OF AIR FORCE SENIOR LEADERS 1960

AIR STAFF

BOMBERS

1. Chairman of Joint Chiefs of Staff - Nathan F. Twining
2. Chief of Staff - General Thomas D. White
3. Vice Chief of Staff - General Curtis E. Lemay
4. Assistant Vice Chief of Staff - Major General Richard M. Montgomery
5. Deputy Chief of Staff, Development - Lieutenant General Roscoe C. Wilson
6. Deputy Chief of Staff, Personnel - Lieutenant General Truman H. Landon
7. Deputy Chief of Staff, Plans and Programs - Lieutenant General John K. Gerhart
8. Assistant Chief of Staff, Intelligence - Major General James H. Walsh
9. Assistant Chief of Staff, Reserve Forces - Major General Robert E. L. Eaton
10. Comptroller of the Air Force - Lieutenant General William D. Eckert
11. Office of the Legislative Liaison - Major General Thomas C. Musgrave, Jr.

FIGHTERS

1. Deputy Chief of Staff Materiel - Lieutenant General Mark E. Bradley
2. Deputy Chief of Staff Operations - Lieutenant General Dean C. Strother

NON-RATED (non-flyers)

1. The Inspector General - Lieutenant General Lieutenant General Joseph F. Carroll
2. The Judge Advocate General - Major General Albert M. Kuhfeld
3. The Surgeon General - Major General Oliver K. Niess
4. Assistant Chief of Staff for Guided Missiles - Brigadier General Milton B. Adams

COMMANDERS

BOMBERS

1. North American Air Defense Command CINC - Laurence S. Kuter
2. Alaskan Air Command CINC - Lieutenant General Frank A. Armstrong
3. Air Defense Command - Lieutenant General Joseph H. Atkinson
4. Air Training Command - Lieutenant General James E. Briggs
5. Air Research and Development Command - Lieutenant General Bernard A. Schriever
6. Air Materiel Command - General Samuel E. Anderson
7. Military Air Transport Service - Lieutenant General Joe W. Kelly, Jr.
8. Headquarters Command - Major General Brooke E. Allen
9. Alaskan Air Command - Major General Conrad F. Necrason
10. Caribbean Air Command - Major General Leland S. Stranathan
11. Air University -- Lieutenant General Walter E. Todd
12. USAF Security Service - Major General Millard Lewis
13. Strategic Air Command - General Thomas S. Power
14. Pacific Air Forces CINC - General Emmet O'Donnell, Jr.
15. Continental Air Command - Lieutenant General William E. Hall

FIGHTERS

1. US Air Forces in Europe CINC - General Frederick H. Smith, Jr.
2. Tactical Air Command - General Frank F. Everest

GENERALISTS

1. Supreme Allied Commander Europe - General Lauris Norstad

## APPENDIX 2

### BACKGROUNDS OF AIR FORCE SENIOR LEADERS 1975

#### STAFF

##### BOMBERS

1. Vice Chief of Staff - General William V. McBride
2. Assistant Vice Chief of Staff - Lieutenant General Marion L. Boswell
3. Deputy Chief of Staff, Programs and Resources - Lieutenant General James A. Hill
4. Deputy Chief of Staff, Plans and Operations - Lieutenant General John W. Pauly
5. Deputy Chief of Staff, Systems and Logistics - Lieutenant General Robert E. Hails
6. Assistant Chief of Staff, Intelligence - Major General George J. Keegan, Jr.
7. The Judge Advocate General - Major General Harold R. Vague
8. Comptroller of the Air Force - Lieutenant General Charles E. Buckingham

##### FIGHTERS

1. Deputy Chief of Staff, Personnel - Lieutenant General Kenneth L. Tallman
2. Deputy Chief of Staff, Research and Development - Lieutenant General Alton D. Slay
3. Office of the Legislative Liaison - Major General Ralph J. Maglione
4. Office of Information - Major General Guy E. Hairston, Jr.

##### GENERALISTS

1. Chairman of Joint Chiefs of Staff - George S. Brown
2. Chief of Staff - General David C. Jones
3. Director of the Air National Guard - Major General John J. Pesch

##### AIRLIFT

1. Chief of Air Force Reserve - Major General William Lyon
2. Chief of Security Police - Major General Thomas M. Sadler

##### NON-RATED (non-flyers)

1. The Inspector General - Lieutenant General Donald G. Nunn
2. The Chief of Air Force Chaplains - Major General Henry J. Meade
3. The Surgeon General - Lieutenant General George E. Schafer
4. Assistant Chief of Staff for Studies and Analysis - Brigadier General Jasper A. Welch, Jr.

#### COMMANDERS

##### BOMBERS

1. Military Airlift Command - General Pau K. Carlton
2. Strategic Air Command - General Russell E. Dougherty
3. Air Force Communications Service - Brigadier General Rupert H. Burris
4. Chief of Staff, SHAPE - General Louis T. Seith
5. Deputy CINC. US European Command - General Robert E. Huyser

##### FIGHTERS

1. US Air Forces Southern Command - Major General James M. Breedlove
2. Tactical Air Command - General Robert J. Dixon
3. Aerospace Defense Command - General Daniel James, Jr.
4. Air Force Logistics Command - General F. Michael Rogers
5. Air Training Command - Lieutenant General John W. Roberts
6. Alaskan Air Command - Lieutenant General James E. Hill
7. USAF Security Service - Brigadier General Kenneth D. Burns
8. Air University - Lieutenant General Raymond B. Furlong
9. Headquarters Command, USAF - Brigadier General William C. Norris
10. USAF Academy - Lieutenant General James R. Allen

##### GENERALISTS

1. CINC US Air Forces Europe - General Richard H. Ellis
2. Pacific Air Forces - General Lotus L. Wilson, Jr.

### APPENDIX 3

#### BACKGROUNDS OF AIR FORCE SENIOR LEADERS 1982

##### STAFF

###### BOMBERS

###### FIGHTERS

1. Chief of Staff - Charles A. Gabriel
3. Assistant Vice Chief of Staff - Lieutenant General Hans H. Driessnach
4. Comptroller of the Air Force - George M. Browning, Jr.
5. Deputy Chief of Staff, Plans and Resources - Lieutenant General John T. Chain, Jr.
6. Deputy Chief of Staff, Logistics and Engineering - Lieutenant General Richard E. Merkling
7. Inspector General - Lieutenant General Howard W. Leaf
8. Chief Air Force Reserve - Major General Sloan R. Gill
9. Chief Air National Guard - Major General John B. Conoway

###### AIRLIFT

1. Deputy Chief of Staff for Manpower and Personnel - Lieutenant General Andrew P. Iosue

###### GENERALISTS

1. Deputy Chief of Staff, Research, Development, and Acquisition - Lieutenant General Kelly H. Burke
2. Vice Chief of Staff - General Jerome F. O'Malley

###### NON-RATED (non-fliers)

1. Deputy Chief of Staff, Programs and Resources - Lieutenant General Charles C. Blanton

##### COMMANDERS

###### BOMBERS

1. Air Training Command - General Thomas M. Ryan, Jr./
2. Air Force Logistics Command - General James P. Mullins/
3. Strategic Air Command - General Bonnie I. Davis/
4. Chief of Staff, SHAPE - General Lawson

###### FIGHTERS

1. US Air Forces in Europe - General Billie M. Minter/
2. Tactical Air Command - General W. L. Creech/
3. Pacific Air Command - Lieutenant General Arnold W. Braswell
4. Air University - Lieutenant General Charles G. Cleveland/
5. USAF Academy - Lieutenant General Robert E. Kelley
6. Military Airlift Command - General James R. Allen/
7. Air Force Space Command - James V. Hartinger/
8. Deputy Commander in Chief, US European Command - General W. Y. Smith

###### AIRLIFT

1. Air Force Special Operations Command - Major General Thomas E. Eggers

###### NON-RATED (non-fliers)

1. Air Force Systems Command - General Robert T. Marsh/
2. Air Force Space Command - Lieutenant General Thomas S. Moorman, Jr.
3. Electronic Security Command - Major General Gary W. O'Shaughnessy

#### APPENDIX 4

#### BACKGROUNDS OF AIR FORCE SENIOR LEADERS 1990

##### STAFF

###### BOMBERS

1. Office of Legislative Liaison - Brigadier General Brett M. Dula
2. Assistant Vice Chief of Staff - Lieutenant General Carl R. Smith

###### FIGHTERS

1. Chief of Staff - Michael J. Dugan
2. Vice Chief of Staff - General J. Michael Loh
3. Director of the National Guard - Major General Philip G. Killey
4. Inspector General - Lieutenant General Bradley K. Hosmer
5. Assistant Chief of Staff, Studies and Analyses - Major General George B. Harrison
6. Chief of the Air Force Reserve - Major General Roger P. Scheer
7. Deputy Chief of Staff, Programs and Resources - Lieutenant General Robert L. Rutherford
8. Deputy Chief of Staff, Plans and Operations - Lieutenant General Thomas J. Hickey
9. Deputy Chief of Staff, Logistics and Engineering - Lieutenant General Henry Viccellio, Jr.
10. Deputy Assistant to Secretary of Air Force for Acquisition - Lieutenant General John E. Jaquish

##### COMMANDERS

###### BOMBERS

1. Military Airlift Command - General H. T. Johnson
2. Air Force Logistics Command - General Charles C. McDonald
3. Chief of Staff, SHAPE - General John A. Shaud

###### FIGHTERS

1. US Air Forces in Europe - General Robert C. Oaks
2. Tactical Air Command - General Robert D. Russ
3. Strategic Air Command - General John T. Chain, Jr.
4. Air Training Command - Lieutenant General Joseph W. Ashe
5. Pacific Air Command - General Merrill A. McPeak
6. Air University - Lieutenant General Charles G. Boyd
7. USAF Academy - Lieutenant General Charles R. Hamm
8. Air Force Systems Command - General Ronald W. Yates

###### AIRLIFT

1. Air Force Special Operations Command - Major General Thomas E. Eggers

###### GENERALISTS

1. CINC North American Aerospace Defense Command - General Donald J. Kutyna
2. Deputy Commander in Chief, US European Command - General James P. McCarthy

###### NON-RATED (non-filers)

1. Air Force Communications Command - Major General Robert H. Ludwig
2. Air Force Space Command - Lieutenant General Thomas S. Moorman, Jr.
3. Electronic Security Command - Major General Gary W. O'Shaughnessy